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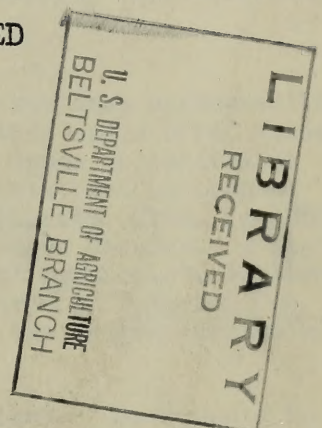
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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
Field Crops Research Branch

(NOT FOR PUBLICATION)

RESULTS FROM THE COOPERATIVE COORDINATED
OAT BREEDING NURSERIES FOR 1953



Compiled by Franklin A. Coffman, H. C. Murphy, and Harland Stevens

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RESULTS FROM THE COOPERATIVE COORDINATED OAT BREEDING NURSERIES FOR 1953

Compiled by Franklin A. Coffman, Senior Agronomist, Oat Investigations,
H. C. Murphy, Principal Pathologist in Charge of Oat Investigations,
and Harland Stevens, Agronomist 1/

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INTRODUCTION

The Cooperative Coordinated Oat Breeding Nursery Program has now been conducted for 30 years. Except for a brief summary appended to the report for 1943 and a brief summary of the data showing the relative adaptation of different varietal types as related to June temperatures which was presented at a meeting of Oat Agronomists held in connection with the meetings of the American Society of Agronomy at Cincinnati, Ohio, in 1952, no general summary has been prepared of data obtained during the three decades. A history of the program was prepared and presented before the meeting of oat agronomists mentioned above, and an article by the Senior Compiler on this subject appeared in National Oat Newsletter, Volume III, pp. 22-25, 1952. The historical facts on the Program presented therefore need not be repeated here.

Starting with the crop year of 1953, the Program was reorganized. Experiments in the northern states were divided into three groups: the Northeastern, North Central, and Northwestern States Experiments. In contrast to the previous setup, only one nursery was grown in each of these three regions in 1953. Previously, two nurseries were grown in each of the latter two regions. In 1953 H. C. Murphy took charge of the regional tests in the North Central States; whereas Harland Stevens continues his responsibility for the regional tests in the Northwestern States and Alaska, and F. A. Coffman continues with the responsibility for the other nurseries included in the National Oat Breeding Nursery Program. With the new setup, two nurseries were eliminated, although data from the Northwest are summarized separately for Irrigated and for Non-irrigated stations. The same entries are grown in both nurseries, however.

The report for 1953, like those for the previous years, includes summary data on the Uniform Winter Hardiness Nursery for the year and supplementary disease reports.

One change in the 1953 report from the plan used previously was the omission of the summary section following the presentation of data for each Region. The nurseries have been reorganized; and as previous summaries were for each nursery irrespective of where grown, summaries are omitted, although a summary table for 1953 is included for each nursery. It is planned that future summaries will be for each of the nurseries on the basis of the new arrangement.

1/ Credit is due Eugenia M. Likens for assistance in all the different phases of assembling the data and preparing the report; to Charlotte V. Singleton for assistance in preparing the report on experiments conducted in the Northeastern and South Central-Southwestern Regions; to Carroll Carlson for assistance in preparing the report on experiments in the North Central Region; and to Gertrude Crippin for assistance in preparing the report on experiments in the Northwestern Region.

Plant Industry Station
Beltsville, Maryland
307CC-April, 1954

KEY TO MAP AND INDEX TO DATA

No. on Map	State	Station	Page No's.	No. on Map	State	Station	Page No's.
1	Me.	Presque Isle, 18		58	Ind.	Lafayette, 29, 58, 74, 119	
2		Orono, 18		59		Princeton, 74, 119	
3	N.H.	Durham, 18		60	Wis.	Madison, 29	
4	Vt.	Burlington, 18		61	Ill.	Urbana, 29, 58, 74, 119	
5	Mass.	Feeding Hills, 18, 74		62		Carbondale, 74, 119	
6	Conn.	Ellington, 74		63	Minn.	St. Paul, 29	
7	R.I.	Kingston, 74		64	Iowa	Ames, 15, 29, 58	
8	N.Y.	Ithaca, 18, 119		65		Kanawha, 29	
9	Del.	Newark, 74		66	Mo.	Columbia, 29, 58, 75, 119	
10	Penna.	Landisville, 71		67		Pierce City, 74	
11		State College, 18, 74, 119		68		Sikeston, 74	
12	Md.	College Park, 119		69	Ark.	Fayetteville, 58, 74, 88, 119	
13		Beltsville, 18, 29, 58, 74, 88, 119		70		Stuttgart, 93, 119	
14	Va.	Warsaw, 88		71	La.	Baton Rouge, 89, 102	
15		Staunton, 119		72		Crowley, 84, 102	
16		Blacksburg, 58, 74, 119		73		St. Joseph, 89	
17	N.C.	Raleigh, 88		74	N.D.	Fargo, 29	
18		Apex (McCullers), 88		75		Langdon	
19		Plymouth, 88		76		Dickinson, 29	
20		Statesville, 55, 71, 88, 119		77		Minot, 29	
21		Waynesville, 119		78	S.D.	Brookings, 29	
22	S.C.	York, 119		79	Nebr.	Lincoln, 29, 58	
23		Clemson, 119		80	Kans.	Manhattan, 29, 58	
24		Blackville, 119		81		Hays, 58	
25		Hartsville, 88, 102, 119		82		Mound Valley, 74	
26		Yemassee, 102		83		Hutcheson, 71	
27	Ga.	Blairsville, 58, 119		84	Okla.	Stillwater, 59, 74, 119	
28		Athens, 88, 119		85		Woodward, 119	
29		Experiment, 58, 71, 91, 119		86	Tex.	Denton, 59, 75, 88, 119	
30		Thomasville, 89, 105		87		Greenville, 119	
31		Tifton, 89, 105		88		Amarillo, 119	
32	Fla.	Gainesville, 71, 89, 105		89		College Station, 91, 107	
33		Live Oak, 105		90		Chillicothe, 74	
34		Quincy, 88, 105		91	Mont.	Havre, 49	
35		Jay, 89, 105		92		Moccasin, 29	
36	Ohio	Wooster, 29		93		Bozeman, 41	
37		Columbus, 29, 58, 74, 119		94		Creston, 41	
38	W. Va.	Morgantown, 18, 119		95	Wyo.	Laramie, 41	
39		Wardensville, 119		96	Colo.	Ft. Collins, 41	
40	Ky.	Lexington, 58, 74, 119		97		Akron, 55	
41		Hopkinsville, 88, 119		98		Hesperus (Ft. Lewis), 41	
42	Tenn.	Knoxville, 71, 119		99	Ida.	Sandpoint, 38	
43		Crossville, 119		100		Moscow, 49	
44		Jackson, 119		101		Tetonia, 49	
45		Columbia, 119		102		Aberdeen, 15, 41, 56, 71, 84	
46	Ala.	Auburn, 1/		103	Utah	Logan, 41	
47		Belle Mina, 89		104	Wash.	Pullman, 49	
48		Camden, 89, 105		105		Prosser, 41	
49		Tallassee, 89, 105		106		Puyallup, 1/	
50		Headland, 105		107		Mt. Vernon, 44, 49, 74	
51		Fairhope, 105		108	Oreg.	Corvallis, 49, 75	
52	Miss.	State College, 84, 119		109		Moro, 49, 119	
53		Stoneville, 88, 105, 119		110		Pendleton, 44, 49	
54		Stoneville Ped. Seed Co., 88		111		Ontario, 41	
55		Poplarville, 102		112		Union, 41	
56		Holly Springs, 119		113		Klamath Falls, 41	
57	Mich.	East Lansing, 26					

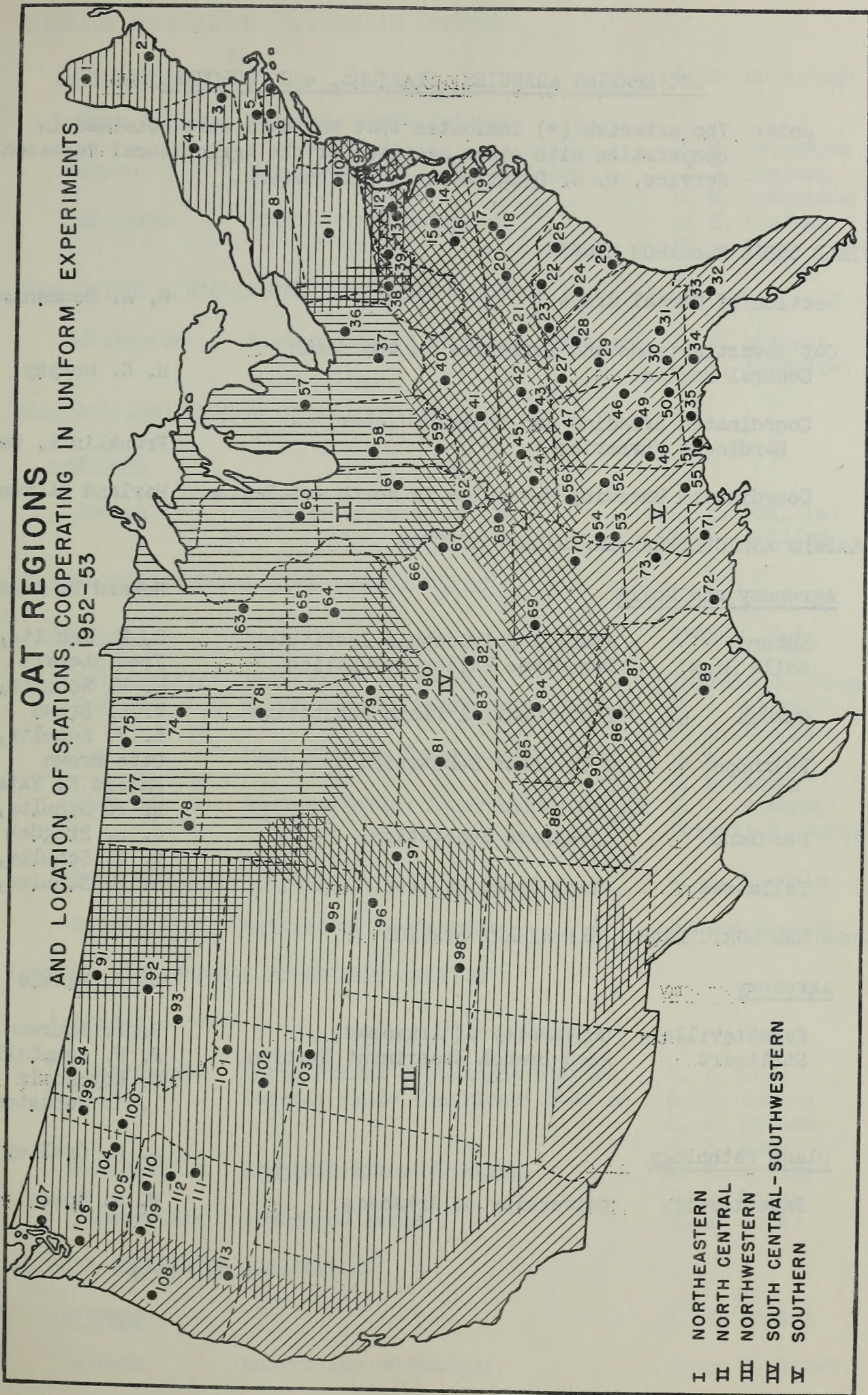
1/ Auburn, Ala., and Puyallup, Wash., both of which cooperated in previous years but not in 1953 were erroneously included in this list this year.

NOT SHOWN ON MAP

Alaska Fairbanks, 118
Palmer, 118

OAT REGIONS

AND LOCATION OF STATIONS, COOPERATING IN UNIFORM EXPERIMENTS
1952-53



- I NORTHEASTERN
- II NORTH CENTRAL
- III NORTHWESTERN
- IV SOUTH CENTRAL-SOUTHWESTERN
- V SOUTHERN

COOPERATING AGENCIES, STATIONS, AND PERSONNEL

Note: The asterisk (*) indicates that the data were obtained in cooperation with other agencies of the Agricultural Research Service, U. S. Department of Agriculture.

FIELD CROPS RESEARCH BRANCH

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Coordinated Breeding and Uniform Winter Hardiness Nurseries	Franklin A. Coffman
Coordinated Breeding Nurseries in Northwest Region	Harland Stevens

ALABAMA AGRICULTURAL EXPERIMENT STATION

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Auburn	Alabama Polytechnic Institute	E. F. Schultz, Jr.
Belle Mina	Tennessee Valley Substation	Fred Stewart
Camden	Lower Coastal Plain Substation	E. F. Schultz, Jr.
Fairhope	Gulf Coast Substation	V. L. Brown
		E. F. Schultz, Jr.
		Otto Brown
		Harold F. Yates
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		C. A. Brogden
Tallassee	Plant Breeding Area	E. F. Schultz, Jr.
		E. F. Schultz, Jr.

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Stuttgart	Rice Branch Experiment Station	J. N. Campbell
		C. Roy Adair
		T. A. Johnston
<u>Plant Pathology</u>	E. M. Cralley	
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COLORADO AGRICULTURAL EXPERIMENT STATION

Agronomy

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of Agriculture
*Akron U.S. Dry Land Field Station
Hesperus Fort Lewis Substation

D. W. Robertson

D. W. Robertson
J. F. Brandon
D. W. Robertson
A. E. Corfman
H. O. Mann

CONNECTICUT AGRICULTURAL EXPERIMENT STATION

Ellington Eastern States Farmers' Exchange

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Agronomy

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Quincy North Florida Experiment Station
Jay West Florida Experiment Station
Live Oak Suwanee Valley Experiment Station

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H. W. Lundy
G. E. Ritchey
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Agronomy

Experiment Agricultural Experiment Station
Tifton Coastal Plain Experiment Station
Blairsville Mountain Branch Station
Thomasville Greenwood Farms

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U. R. Gore
G. W. Burton
S. A. Parham
U. R. Gore
J. E. Bailey
U. R. Gore
U. R. Gore

GEORGIA COLLEGE OF AGRICULTURE

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Athens University of Georgia

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Acton R. Brown

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(St. Anthony)	Station	Hugh C. McKay

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		J. W. Pendleton
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		F. L. Patterson

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Princeton	Frank MacRobert's Farm	L. E. Compton
		R. M. Caldwell
		L. E. Compton
		J. F. Schafer

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		H. C. Murphy
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Botany and Plant Pathology

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		H. C. Murphy
		M. D. Simons
Kanawha	North Iowa Agricultural	C. S. Reddy
	Expt. Assn.	J. A. Browning
		H. C. Murphy

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Manhattan	Kansas State College of Agriculture	R. V. Olson
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		W. L. Fowler
Hays	Ft. Hays Branch Experiment Station	W. W. Duitsman
		W. M. Ross
Kingman	Hutcheson Field	E. G. Heyne
		Walter Moore
Mound Valley	Branch Experiment Station	F. E. Davidson
		E. G. Heyne
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Botany and Plant Pathology

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		E. D. Hansing

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		James F. Shane
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Crowley	Rice Experiment Station	R. K. Walker
		N. E. Jodon
St. Joseph	Northeast Louisiana Station	C. B. Haddon
		J. A. Hendrix
		J. P. Gray

MAINE AGRICULTURAL EXPERIMENT STATION

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W. G. Colby

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MINNESOTA AGRICULTURAL EXPERIMENT STATION

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St. Paul University of Minnesota

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W. M. Myers
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Botany and Plant Pathology

St. Paul University of Minnesota

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MISSISSIPPI AGRICULTURAL EXPERIMENT STATION

Agronomy

State College Mississippi State College
Stoneville Delta Branch Experiment Station
Poplarville South Mississippi Branch Station
Holly Springs North Mississippi Branch Station

C. D. Hoover
S. S. Ivanoff *
W. L. Giles
Donald Bowman
T. E. Ashley
S. S. Ivanoff
S. P. Crockett
S. S. Ivanoff

MISSISSIPPI, STONEVILLE

Stoneville Pedigreed Seed Company

George R. Walker
C. W. Manning

* Ivanoff is included in the Plant Pathology Dept., although conducting experiments in agronomy as indicated.

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Pierce City
Sikeston

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J. M. Poehlman
J. M. Poehlman
J. M. Poehlman

MONTANA AGRICULTURAL EXPERIMENT STATION

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Havre	North Montana Branch Station
Moccasin	Central Montana Branch Station
Creston	Northwestern Montana Branch Sta.

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R. F. Eslick
F. C. Petr
J. J. Sturm
Lawrence O. Baker
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Agronomy

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R. L. Donahue

L. J. Higgins

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and Mechanical Arts

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Agronomy

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G. K. Middleton

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Waynesville	Mountain Branch Station	Ray Whisenhunt G. K. Middleton T. T. Hebert
Statesville	Piedmont Branch Station	J. W. Hendricks G. K. Middleton T. T. Hebert John Moseman
Plymouth	Tidewater Branch Station	J. L. Rea G. K. Middleton T. T. Hebert J. H. Jensen

Botany (Plant Pathology)

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Dickinson	Dickinson Substation	R. J. Douglas T. J. Conlon
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Botany and Plant Pathology

		W. W. Hansen
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OREGON AGRICULTURAL EXPERIMENT STATION

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Klamath Falls Klamath Experimental Area
Union Eastern Oregon Branch Station

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W. A. Hall
E. N. Hoffman
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G. R. Crowley

PENNSYLVANIA AGRICULTURAL EXPERIMENT STATION

Agronomy

State College Pennsylvania State College
Landisville

H. B. Sprague

C. S. Bryner
C. S. Bryner

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Agronomy

Kingston University of Rhode Island

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SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION

Agronomy

Clemson Clemson Agricultural College
Blackville Edisto Experiment Station

W. R. Paden

W. R. Paden
F. B. Eskew
W. B. Rogers

SOUTH CAROLINA, HARTSVILLE

Hartsville Coker's Pedigreed Seed Co.
Yemassee Coker's Pedigreed Seed Co.
York Coker's Pedigreed Seed Co.

Robert Coker
J. Winston Neely
S. J. Hadden
S. J. Hadden
S. J. Hadden

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION

Agronomy

Brookings South Dakota State College

W. W. Worzella

V. A. Dirks

TENNESSEE AGRICULTURAL EXPERIMENT STATION

Agronomy

Eric Winters

Knoxville	University of Tennessee	N. I. Hancock *
Crossville	Plateau Experiment Station	J. A. Odom
		N. I. Hancock
Jackson	West Tennessee Experiment Station	B. P. Hazelwood
		N. I. Hancock
Columbia	Middle Tennessee Experiment Sta.	E. J. Chapman
		N. I. Hancock

TEXAS AGRICULTURAL EXPERIMENT STATION

Agronomy (Corn and Small Grains)

J. E. Adams

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		G. W. Rivers
Denton	Substation No. 6	D. I. Dudley
		I. M. Atkins
		D. E. Weibel
*Greenville	Cotton Field Station	D. D. Porter
Amarillo	Soil Conservation Investigations	K. B. Porter
Chillicothe	Substation No. 12	J. R. Quinby
		I. M. Atkins

UTAH AGRICULTURAL EXPERIMENT STATION

Agronomy

D. W. Thorne

Logan	Utah State Agricultural College	R. W. Woodward
-------	---------------------------------	----------------

VERMONT AGRICULTURAL EXPERIMENT STATION

Agronomy

A. R. Midgley

Burlington	University of Vermont	K. E. Varney
------------	-----------------------	--------------

VIRGINIA AGRICULTURAL EXPERIMENT STATION

Agronomy

H. L. Dunton

Blacksburg	Virginia Polytechnic Institute	T. M. Starling
Staunton	Shenandoah Valley Field Station	P. T. Gish
		T. M. Starling
Warsaw	Eastern Virginia Field Station	H. M. Camper
		T. M. Starling
		C. W. Roane

Plant Pathology and Physiology

Blacksburg	Virginia Polytechnic Institute	S. A. Wingard
		C. W. Roane

* Hancock is included in Botany Dept., although conducting agronomic experiments as indicated.

WASHINGTON AGRICULTURAL EXPERIMENT STATION

Agronomy

Pullman	State College of Washington
Prosser	Irrigated Experiment Station
Puyallup	Western Washington Experiment Sta.
Mt. Vernon	Northwestern Washington Experiment Station

B. R. Bertramson

S. P. Swenson
F. C. Elliott
H. P. Singleton
D. L. Oldemeyer
J. W. Kalkus
D. R. Peterson

M. W. Carstens
Corwin Johnson

Plant Pathology

Pullman	State College of Washington
---------	-----------------------------

G. W. Fischer

C. S. Holton

WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION

Agronomy and Genetics

Morgantown	West Virginia University
Wardensville	Reymann Memorial Farms

G. G. Pohlman

Collins Veatch
C. J. Cunningham
Collins Veatch

WISCONSIN AGRICULTURAL EXPERIMENT STATION

Agronomy

Madison	University of Wisconsin
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D. C. Smith

H. L. Shands

WYOMING AGRICULTURAL EXPERIMENT STATION

Agronomy

Laramie	University of Wyoming
---------	-----------------------

D. W. Bohmont

R. F. Pfeifer

ALASKA AGRICULTURAL EXPERIMENT STATION

Agronomy

Palmer	
Fairbanks	

H. J. Hodgson

R. L. Taylor
R. L. Taylor

COOPERATIVE COORDINATED OAT BREEDING NURSERIES

As in the 1952 report, data on the Coordinated Breeding Nurseries of the country were divided into five regions as shown in Fig. 1. The northern part of the country is divided into the Northeastern, North Central, and Northwestern Regions. To the south of these is the fourth, or South Central-Southwestern Region; whereas the fifth, or Southern Region, includes the 13 southern states.

Except for tests in two nurseries--the Spring Sown Red and the Special Winter Oat Nursery--each nursery is grown on stations located within one of the five regions. These two tests are grown on stations located in all five regions. In this report data on the former are included in the report on the South Central-Southwestern Region and for the latter, in the Southern Region. Obviously, other systems for the division of the country than the one used herein could be considered equally as logical, but the one used has seemed convenient for the presentation of the data received.

The Cooperative Coordinated Oat Breeding Program in 1952-53 included seven yield nursery experiments seeded on 99 stations in 43 states of the United States and on two stations in Alaska, or at a total of 101 points. In addition, Uniform Winter Hardiness nurseries were grown on 13 stations that did not cooperate in growing yield experiments; hence, cooperative agronomic experiments with oats were conducted at 114 points in 1952-53.

NORTHEASTERN REGION

Spring oats are by far the most important in this region , although some oats are fall sown. Weather conditions in 1953 were rather unfavorable for spring sown oats, whereas fall sown oats made unusually fine yields in the area. As the region includes the states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Maryland, and West Virginia, climatic conditions differ so widely from north to south that oats adapted in the southern sections are totally unadapted in the northernmost section and vice versa.

In the more northern sections midseason oats usually do best; earlier maturing varieties yield better when seeded at the lower elevations in the "middle states"; whereas some oats are grown from fall seeding in the southern states of this region.

The winter of 1952-53 in this region was mild, and fall seeded oats made excellent yields in almost every area where sown. Drought did not reduce their yields so much as it did the yields of the spring sown oats. As a consequence, interest in fall sown oats in the region is increasing, however, as the fall of 1953 was so dry that fall sown oats could not become established until late in the season possibly interest in winter oats will be reduced somewhat, as considerable winter killing is likely to be observed in 1953-54

Uniform Northeastern States Oat Experiment

The spring sown Northeastern States Nursery was seeded on nine stations in 1953. Stations cooperating were as follows:

Me.	Presque Isle	N. Y.	Ithaca
	Orono	Penna.	State College
N. H.	Durham	Vt.	Burlington
Mass.	Feeding Hills	W. Va.	Morgantown
		Md.	Beltsville

The entries were sown at Beltsville, Maryland, primarily as an observational nursery. A similar nursery was grown at Aberdeen, Idaho, and Ames, Iowa. The entries in this nursery were grown in disease gardens at Ames, Iowa and in the summer rust nursery at Beltsville, Maryland.

The Uniform Northeastern States Nursery in 1953 included 37 entries. Check varieties were Victory, Ajax, Mohawk, Shelby, Tama and Clinton "59". A total of 10 of the entries were from Canada, four were from the Northwestern Region, and most of the others were from the North Central Region. For the most part these oats are generally considered midseason oats, although many are better classed as early to midseason varieties. Data on these experiments are included in Tables 1 to 7, inclusive.

Yield, Bushels per Acre

Yield data were obtained from 8 stations in 1953, two less than in 1952. New Brunswick, N. J., and Kingston, R. I., did not grow the nursery in 1953. Yield averages in 1953 were somewhat below those for the previous year. The highest yielders in 1953 were Improved Garry, Rodney, Garry Selection, Simcoe, Sauk, Clarion, Craig, and C. I. Nos. 6641, 6768, and 6777. All averaged in excess of 55 and none of them averaged 60 bushels per acre. Among new oat varieties of the North Central and Northwestern Regions other than Sauk, Mo. O-205 averaged 54.4; Park, 39.0; Clintafe, 47.0; and Clintland, 51.8. Clarion averaged 56.6 as compared with 50.1 for Clinton "59" Check. Mohawk averaged only 49.0 bushels and the difference between it and Clarion was 7.6 bushels. These figures apparently indicate Clarion may be an acceptable replacement for some of the acreage of these two oats in the region. Park, averaging only 39.0 bushels, was the poorest yielding entry in 1953. Likely its susceptibility to H. victoriae was partially responsible for its poor showing.

Test Weight

Reports on test weight of entries in the experiment were received from five points. On the average, test weights were better in this region in 1953 than in 1952. Only one entry, Roxton, tested below 30 pounds per bushel on the average; and nine entries gave average test weights exceeding 34 pounds per bushel. Larain tested best among the Canadian oats, 34.6 pounds. Among other new oats in this region Craig tested 32.4; Mo. O-205, 33.7; Clarion, 33.4; Park, 30.8; Clintafe, 33.0; and Clintland, 34.3 pounds per bushel.

Plant Height

Data on plant height were received from five stations in addition to Beltsville, Maryland. The tallest oats in 1953 were Roxton, measuring 41.4 inches; C. I. 6771, 40.4; Simcoe and Victory, both 40.0; Fortune, 39.8; Ajax, 39.6; and Larain, 39.2. Several others averaged 39.0 inches tall. Among the shorter entries were Clintland and its sister strain C. I. 6700. These averaged 34.6 and 34.4 inches tall, respectively. Among other new oat varieties Craig averaged 32.4; Mo. O-205, 37.8; Clarion, 36.8; and Clintafe, 35.4 inches tall.

Standing Ability

Lodging was reported from four stations, although only one entry, Roxton, lodged at Feeding Hills, Massachusetts. The stiffest strawed entry in 1953 was Clarion, which lodged only one half of one percent, Clintland lodged 0.8 percent, and Clintafe averaged only one percent. C. I. No. 6780 lodged most, 43.5 percent. Other entries that were stiff strawed were Clinton "59", Improved Garry, Larain, Mohawk, and the Clinton x Marion strain, sister of Clarion, recently named Waubay, which averaged only 2 percent lodging. C. I. 6613 lodged only 1.8 percent.

Date Headed

Data on date of heading were received from four stations. In addition, data are available from Beltsville, Maryland; and data on a few entries were received from Morgantown, West Virginia.

On the average, Victory, Roxton, and Exeter headed latest or on July 14, whereas C. I. 6649 headed earliest, July 2. Average heading dates of many entries were July 3, 4, or 5. Among the new oat varieties, Craig headed July 12; Sauk, July 9; Mo.O-205, July 3; Clarion, July 4; Park, July 11; Clintafe, July 8; and Clintland, July 5. Mohawk and Clinton "59" headed July 6 and July 5, respectively.

Date Ripe

Other than Beltsville, Maryland, only one station in the area, Feeding Hills, Massachusetts, reported data on date ripe. Roxton and Victory were the latest entries. They ripened August 2 and 1, respectively; whereas C. I. 6644 ripened earliest, July 16. Among new oats Craig and Sauk ripened July 24; Mo. O-205, July 17; Clarion, July 18; Clintafe, July 22; and Clintland, July 20.

Disease Resistance

A report of the presence of crown rust was received from only Ithaca, New York. Infection ranged from "Trace" in C. I. Nos. 6771, 6768, and 6700 to 90 percent in Beaver, Exeter, Clinton "59", Mohawk, Clarion, Waubay, and C. I. 5441. Clintafe was recorded as having 35 percent crown rust infection, Park, 40; Mo.O-205, 25; Craig, 45; Sauk, 40; and Clintland, 10 percent.

Table 1. Yields on stations reporting of varieties and hybrid selections included in the Uniform Northeastern States Oat Experiment

grown in 1953

C. I. No.	Variety or Selection	Average o	Presque Isle, Maine	Orono, Maine	Feeding Hills, Mass.	Durham, N. H.	Ithaca, N. Y.	State College, Penna.	Burlington, Vt.	Morgantown, W. Va.	Beltsville, Md.
4234	Roxton	49.5	53.2	69.5	25.0	38.3	55.5	77.9	1/	27.7	8.8
4521	Beaver	51.8	56.0	72.2	33.4	39.3	48.2	65.1	54.2	45.8	28.4
4153	Exeter	51.1	54.4	84.8	13.8	36.9	57.1	63.0	59.8	39.1	16.6
5225	Fortune	53.7	59.7	82.5	29.9	43.6	57.0	66.9	54.6	35.5	16.4
4157	Ajax (Check)	53.8	57.7	80.6	31.3	42.5	54.4	67.2	50.6	45.9	29.2
6661	Rodney	58.2	71.8	103.9	10.4	46.5	62.4	69.6	56.4	44.4	23.4
6767	Simcoe	56.9	53.4	78.3	31.9	43.0	62.1	75.6	53.4	57.7	33.6
6643	Garry Selection	57.5	64.1	88.4	25.2	48.6	58.4	73.3	58.0	43.7	31.2
6662	Garry (Improved)	59.9	67.0	89.2	27.7	38.6	58.7	74.0	63.6	60.2	31.8
6541	Larain	54.1	52.6	80.6	31.5	38.2	50.2	79.4	52.0	48.0	36.8
5946	Sauk	56.9	54.1	87.8	37.1	42.1	59.5	70.3	59.4	45.1	31.8
5332	Craig	56.1	59.6	80.9	30.1	37.4	52.8	83.1	54.4	50.8	26.2
4988	No. O-205	54.4	52.8	80.8	43.2	39.4	43.2	82.5	37.8	55.4	29.6
5647	Clarion: Clinton x Marion	56.6	52.8	81.8	40.1	41.8	46.8	82.7	1/	58.5	24.0
5441	Clinton x Marion	54.4	56.6	86.2	38.4	40.2	49.3	75.1	41.4	47.9	26.0
5440	"	48.6	52.6	79.2	35.5	34.3	43.1	62.6	39.8	41.9	21.2
4259	Clinton "59" (Check)	50.1	50.9	80.5	31.1	40.8	34.7	71.1	1/	42.8	27.2
560	Victory (Check)	47.8	60.7	71.8	18.5	31.4	55.7	58.9	47.8	40.9	9.0
4372	Shelby (Check)	53.1	51.9	86.8	37.9	36.5	46.9	70.2	57.8	36.5	21.4
3502	Tama (Check)	52.6	51.5	77.7	35.9	33.8	54.5	77.0	51.6	39.0	27.8
5347	(Bond-Anthony) x Overland	46.1	55.0	61.3	16.2	37.1	52.0	77.6	48.9	21.0	24.0
6613	"	51.3	63.1	77.0	24.4	33.7	55.8	60.5	45.6	50.6	17.8
5346	Clinton x Overland	43.9	51.6	68.5	21.1	38.9	55.2	74.8	38.0	3.4	16.6
6611	Park: Clinton x Overland	39.0	42.2	50.9	23.2	42.7	48.7	52.2	44.2	8.0	16.8
6644	Clinton2 x Ark. 674	49.6	48.1	77.2	33.9	37.6	45.6	64.8	39.2	50.2	37.6
6641	Clinton2 x (Boone-Cartier)	55.6	59.5	80.6	35.7	36.1	58.6	75.9	58.3	40.2	35.0
6649	Santa Fe x Bonham: 3665-5	46.6	42.7	70.3	34.5	30.8	45.2	57.2	46.8	45.4	24.0
6771	" : 3665-3	47.8	43.7	67.9	37.9	40.0	39.4	57.3	42.5	53.4	29.6
6768	Bonda x Santa Fe: 3699-7	55.6	58.7	77.5	45.5	39.9	47.8	74.6	40.7	59.7	28.6
6776	Santa Fe x Benton: 3976-5	51.9	52.9	78.5	38.2	32.2	42.8	70.2	48.7	51.4	33.6
6777	" : 3978-3	55.1	54.6	76.7	36.3	38.1	47.1	80.9	45.3	62.1	28.2
5869	Clintafe: Santa Fe x Clinton	47.0	48.7	84.7	16.9	39.8	49.8	62.3	36.7	37.2	21.8
4327	Mobawk (Check)	49.0	52.8	83.6	24.3	36.4	55.0	59.6	1/	31.4	30.6
6779	Benton x Santa Fe: 4165-2	44.0	39.2	65.4	19.2	34.4	42.2	54.1	1/	49.1	33.2
6780	" : 4207-1	44.7	48.8	61.4	26.5	32.6	45.8	59.5	42.6	40.3	24.6
6700	Clinton4 x Landhafer	50.6	47.5	90.0	31.7	40.3	47.2	63.5	44.3	40.5	34.2
6701	Clintonland: Clinton4 x Landhafer	51.8	43.0	90.5	31.7	34.8	45.2	72.3	41.7	55.3	34.8

1/ Yields reduced because of faulty cleaning;
 2/ Average of station used.
 3/ Beltsville, Md., not included in the average.

Table 2. Test weights on stations reporting of varieties and hybrid selections included in the Uniform Northeastern States Oat Experiment grown in 1953

C. I. No.	Variety or Selection	Average Stations	Maine Presque Isle,	Orono, Maine,	Feeding Hills, Mass.	Durham, N. H.	Burlington, Vt.
					Pounds		
4134	Roxton	29.5	34.5	34.0	17.5	27.5	1/
4521	Beaver	31.8	33.0	32.5	31.7	29.0	33.0
4158	Exeter	31.1	33.5	34.0	24.0	31.0	33.0
5226	Fortune	32.1	34.0	34.0	30.7	29.0	32.1
4157	Ajax (Check)	32.0	32.5	34.5	32.2	28.0	33.0
6661	Rodney	32.8	37.5	37.0	22.2	31.5	36.0
6767	Simcoe	32.7	33.0	34.0	33.2	30.5	33.0
6648	Garry Selection	31.8	34.0	33.0	28.7	29.5	34.0
6662	Garry (Improved) R.L.1692-27	32.6	34.0	35.5	28.5	31.0	34.0
6541	Larain	34.6	34.5	36.5	35.0	31.0	36.2
5946	Sank	33.5	34.5	33.0	34.2	29.5	36.2
5332	Craig	32.4	33.5	33.5	32.0	29.0	33.8
4988	Mo. O-205	33.7	35.5	35.0	33.2	31.0	34.0
5647	Clarion: Clinton x Marion	33.4	34.0	36.5	32.7	30.0	34.0
5441	Clinton x Marion	34.5	35.0	38.0	32.3	31.0	36.2
5440	"	34.2	35.5	36.0	34.2	30.5	35.0
4259	Clinton "59" (Check)	34.4	35.0	36.0	34.2	30.0	37.0
560	Victory (Check)	31.0	35.5	35.0	23.7	28.0	33.0
4372	Shelby (Check)	34.4	36.5	37.0	34.0	29.0	35.5
3502	Tama (Check)	32.6	33.5	32.0	32.7	31.0	34.0
5347	(Bond-Anthony) x Overland	32.2	35.0	34.5	27.7	30.0	33.8
6613	"	30.5	34.0	33.5	23.5	28.5	33.0
5346	Clinton x Overland ²	31.7	34.0	34.5	27.2	31.0	32.0
6611	Park:Clinton x Overland ²	30.8	32.5	29.0	31.5	32.2	30.8
6644	Clinton ² x Ark. 674	33.4	35.0	35.5	32.0	29.5	35.2
6641	Clinton ² x (Boone+Cartier)	34.2	35.5	36.5	34.0	30.0	34.8
6649	Santa Fe x Bonham: 3665-5	31.0	31.5	34.0	27.5	39.0	33.2
6771	" " : 3665-3	31.2	31.5	35.0	27.0	29.5	32.8
6768	Bonda x Santa Fe: 3699-7	30.9	30.0	31.5	30.2	32.0	31.0
6776	Santa Fe x Benton: 3976-5	31.4	31.0	34.0	30.0	29.0	33.0
6777	" " : 3978-3	31.5	33.0	34.0	30.2	28.0	32.5
5869	Clintafe:Santa Fe x Clinton	33.0	34.0	36.5	31.5	30.5	32.5
4327	Mohawk (Check)	34.5	35.5	36.5	34.7	30.0	36.0
6779	Benton x Santa Fe: 4165-2	31.8	32.5	36.0	30.2	26.5	1/
6780	" " : 4207-1	31.9	33.5	32.5	32.2	30.5	30.8
6700	Clinton ⁴ x Landhafer	34.2	35.5	36.0	34.2	29.0	36.2
6701	Clinton ⁴ :Clinton ⁴ x Landhafer	34.3	35.5	37.0	34.0	29.5	35.5

1/ Average of all entries grown substituted for missing data.

Table 3. Plant height on stations reporting of varieties and hybrid selections included in the Uniform

Northeastern States Oat Experiment grown in 1953

C. I. No.	Variety or Selection	Average Stations	Presque Isle, Maine	Orono, Maine	Reading Hills Mass	State College Penna.	Morgantown, W. Va.	Beltsville, Md.
			Inches					
4134	Roxton	41.4	37	51	38	49	32	48.0
4521	Beaver	38.6	34	46	35	44	34	43.0
4158	Exeter	37.0	32	45	36	42	30	43.5
5226	Fortune	39.8	34	47	36	48	34	42.0
4157	Ajax (Check)	39.6	33	46	36	47	36	44.0
6661	Rodney	39.0	35	46	37	45	32	40.5
6767	Simcoe	40.0	33	47	36	47	37	46.0
6648	Garry Selection	38.8	34	45	36	46	33	42.0
6662	Garry (Improved)	38.0	34	45	35	42	34	43.5
6541	Larain	39.2	31	44	38	47	36	43.0
5946	Sauk	38.2	31	46	36	46	32	38.5
5332	Craig	32.4	26	39	31	38	28	35.0
4988	Mo. O-205	37.8	30	45	37	44	33	40.0
5647	Clarion: Clinton x Marion	36.8	30	39	37	43	35	40.0
5441	Clinton x Marion	37.8	31	44	38	43	32	43.0
5440	"	36.8	30	43	38	42	31	41.0
5259	Clinton "59" (Check)	35.4	29	40	35	40	33	36.0
560	Victory (Check)	40.0	36	46	41	44	33	42.5
4372	Shelby (Check)	37.4	31	43	37	44	32	42.0
3502	Tama (Check)	34.4	28	38	35	39	32	36.0
5347	(Bond-Anthony) x Overland	37.0	29	42	37	45	32	40.0
6613	"	38.2	32	45	40	42	32	42.0
5346	Clinton x Overland ²	36.6	30	44	37	44	28	40.0
6611	Park: Clinton x Overland ²	35.0	28	41	36	41	29	38.5
6644	Clinton ² x Ark. 674	34.0	28	36	36	38	32	36.0
6641	Clinton ² x (Boone-Cartier)	39.0	33	46	37	46	33	43.5
6649	Santa Fe x Bonham: 3665-5	39.0	33	45	36	46	35	42.0
6771	" " : 3665-3	40.4	33	47	36	46	40	38.5
6768	Bonda x Santa Fe: 3699-7	35.6	31	40	32	42	33	34.0
6776	Santa Fe x Benton: 3976-5	34.0	30	38	31	41	30	33.0
6777	" " : 3978-3	35.0	30	39	31	41	34	34.0
5869	Clintafe: Santa Fe x Clinton	35.4	29	41	31	44	32	38.5
4327	Mohawk (Check)	34.0	29	41	31	39	30	37.0
6779	Benton x Santa Fe: 4165-2	38.8	31	44	34	46	39	38.5
6780	" " : 4207-1	37.6	32	43	32	47	34	35.5
6700	Clinton ⁴ x Landhafer	34.4	29	39	33	39	32	39.0
6701	Clintonland: Clinton ⁴ x Landhafer	34.6	29	40	33	38	33	37.0

1/ Data from Beltsville, Md., not included in the average.

Table 4. Percent of lodging on stations reporting of varieties and hybrid selections included in the Uniform Northeastern

Oat Experiment grown in 1953

C. I. No.	Variety or Selection	Average Stations 4	Presque Isle, Maine	Orono, Maine	Feeding Hills, Mass.	State College, Penn.	Beltsville, Md. 1/
4134	Roxton	13.3	0	40	10	3	5.0
4521	Beaver	5.0	2	18	0	0	5.0
4158	Exeter	6.0	0	22	0	2	5.0
5226	Fortune	13.8	10	30	0	15	62.5
4157	Ajax (Check)	15.8	5	30	0	28	5.0
6661	Rodney	5.3	0	17	0	4	5.0
6767	Simcoe	9.5	2	20	0	16	7.5
6648	Garry Selection	3.3	0	10	0	3	5.0
6662	Garry (Improved)	2.0	0	8	0	0	0
6541	Larain	2.0	0	8	0	0	2.5
5946	Sauk	10.0	0	37	0	3	2.5
5332	Craig	14.3	5	27	0	25	22.5
4988	Mo. O-205	17.3	10	43	0	16	62.5
5647	Clarion: Clinton x Marion	.5	0	2	0	0	35.0
5441	Clinton x Marion	9.3	5	17	0	15	50.0
5440	"	2.0	0	8	0	0	27.5
4259	Clinton "59" (Check)	2.0	3	2	0	3	7.5
560	Victory (Check)	7.3	0	29	0	0	5.0
4372	Shelby (Check)	12.8	3	30	0	18	27.5
3502	Tama (Check)	21.0	12	37	0	35	25.0
5347	(Bond-Anthony) x Overland	5.5	3	19	0	tr	5.0
6613	"	1.8	0	7	0	0	47.5
5346	Clinton x Overland ²	6.8	0	17	0	10	85.0
6611	Park: Clinton x Overland ²	7.5	3	19	0	8	92.5
6644	Clinton ² x Ark. 674	17.8	8	5	0	58	10.0
6641	Clinton ² x (Boone-Cartier)	9.5	3	27	0	8	22.5
6649	Santa Fe x Bonham: 3665-5	2.5	0	7	0	3	5.0
6771	" : 3665-3	2.5	2	8	0	0	55.0
6768	Bonda x Santa Fe: 3699-7	6.0	3	3	0	18	100.0
6776	Santa Fe x Benton: 3976-5	28.8	3	18	0	94	100.0
6777	" : 3978-3	27.8	3	20	0	88	100.0
5869	Clintafe: Santa Fe x Clinton	1.0	2	2	0	0	5.0
4327	Mohawk (Check)	2.0	0	7	0	1	30.0
6779	Benton x Santa Fe: 4165-2	23.0	20	19	0	53	22.5
6780	" : 4207-1	43.5	30	63	0	81	100.0
6700	Clinton ⁴ x Landhafer	4.5	3	5	0	10	12.5
6701	Clintonland: Clinton ⁴ x Landhafer	.8	0	3	0	tr	2.5

1/ Data from Beltsville, Md., not included in the average.

Table 5. Date of heading and ripening on stations reporting of varieties and hybrid selections included in the Uniform Northeastern States Oat Experiment grown in 1953

C. I. No.	Variety or Selection	Date Headed					Date Ripe		
		Average 4 Stations	Presque Isle, Maine	Orono, Maine	Feeding Hills, Mass.	State College, Penn.	Morgantown, W. Va. 1/	Feeding Hills, Mass.	Beltsville,
4134	Roxton	7-14	7-23	7-28	7-4	6-29	6-22	8-2	7-3
4521	Beaver	9	19	24	6-30	23	17	7-24	4
4158	Exeter	14	23	29	7-4	29	21	28	3
5226	Fortune	12	22	26	1	26	18	24	3
4157	Ajax (Check)	9	18	23	6-29	23	19	24	1
6661	Rodney	13	21	27	7-4	28	19	28	1
6767	Simcoe	8	17	23	6-29	22	20	24	1
6648	Garry Selection	8	19	24	26	23	20	24	4
6662	Garry (Improved)	8	19	24	26	23	20	24	6-30
6541	Larain	8	19	24	26	22	20	22	7-1
5946	Sauk	9	19	25	28	22	20	24	6-30
5332	Craig	12	22	26	30	27	20	24	7-3
4988	Mo. O-205	3	14	19	22	18	20	17	6-30
5647	Clarion: Clinton x Marion	4	14	18	23	21	20	18	30
5441	Clinton x Marion	7	16	22	24	23	20	19	30
5440	"	5	15	19	24	22	20	19	7-1
4259	Clinton "59" (Check)	5	13	18	25	22	20	19	6-29
560	Victory (Check)	14	22	28	7-5	30	20	8-1	7-4
4372	Shelby (Check)	8	17	23	6-27	23	20	7-21	1
3502	Tama (Check)	6	15	21	26	22	20	18	6-30
5327	(Bond-Anthony) x Overland	11	20	25	30	27	20	24	7-4
6613	"	12	21	27	30	29	20	22	4
5346	Clinton x Overland2	11	21	26	29	27	20	22	6-30
6611	Park: Clinton x Overland2	11	22	26	29	27	20	22	4
6644	Clinton2 x Ark. 674	3	13	17	21	18	20	16	29
6641	Clinton2 x (Boone-Cartier)	10	20	25	27	25	18	21	7-1
6649	Santa Fe x Bonham: 3665-5	2	12	17	21	18	18	22	6-30
6771	Santa " " : 3665-3	3	13	17	22	18	18	22	30
6768	Bonda x Santa Fe: 3699-7	3	14	18	21	17	17	21	7-1
6776	Santa Fe x Benton: 3976-5	3	13	18	21	18	18	21	6-29
6777	" " : 3978-3	3	14	18	22	18	18	21	29
5869	Clintaefe: Santa Fe x Clinton	8	18	21	26	24	24	22	29
4327	Mohawk (Check)	6	14	19	25	24	24	22	31
6779	Benton x Santa Fe: 4165-2	5	13	19	25	21	21	22	30
6780	" " : 4207-1	5	13	18	26	21	21	22	29
5700	Clinton4 x Landhafer	4	13	18	24	21	21	21	30
6701	Clintonland: Clinton4 x Landhafer	5	13	18	24	22	22	20	30

1/ Not included in the average.

Table 7. Straw and Forage Yields in the Northeastern States Nursery in 1953.

Straw			Forage	
Average 2 Stations	Feeding Hills Mass.	Burlington, Vt.	Durham, N. H.	
			Tons	Tons
1.20	1.66	1/	1.72	
1.17	1.54	.91	1.61	
1.19	1.43	.85	1.51	
1.13	1.39	.88	1.62	
.74	1.39	.09	1.78	
1.33	1.81	.85	1.82	
1.06	1.32	.81	1.63	
1.13	1.35	.92	1.60	
1.20	1.52	.88	1.55	
1.18	1.49	.89	1.52	
1.07	1.37	.77	1.56	
1.03	1.23	.83	1.29	
.99	1.46	.53	1.43	
.97	1.20	.74	1.76	
1.06	1.40	.73	1.53	
.99	1.33	.65	1.34	
1.05	1.29	.82	1.49	
.94	1.10	.78	1.23	
1.11	1.40	.83	1.36	
.94	1.20	.69	1.26	
.87	1.00	.74	1.37	
1.21	1.69	.73	1.24	
1.09	1.54	.65	1.40	
1.14	1.59	.70	1.33	
.89	1.19	.59	1.14	
1.20	1.56	.84	1.32	
1.07	1.37	.77	1.11	
.99	1.29	.69	1.50	
1.01	1.42	.60	1.48	
.93	1.21	.65	1.12	
1.02	1.40	.65	1.31	
1.07	1.35	.79	1.38	
1.12	1.41	.83	1.35	
.98	1.22	1/	1.21	
1.02	1.29	.76	1.07	
.93	1.07	.79	1.30	
.95	1.22	.68	1.47	

Table 6. Reaction to diseases on stations reporting of varieties and hybrid selections included in the Uniform Northeastern States Oat Experiment in 1953

C. I. No.	Variety or Selection	Crown Rust		Stem Rust		Smut	Septoria		Stem Rust
		Ithaca, N. Y.	Feeding Hills, Mass.	Ithaca, N. Y.	Feeding Hills, Mass.				
		%							
4134	Roxton	40	0	0	0	0	0	0	0
4521	Beaver	90	0	0	0	0	0	0	0
4158	Exeter	90	0	0	0	0	0	0	0
5226	Fortune	75	0	0	0	0	0	0	0
4157	Ajax (Check)	65	0	0	0	0	0	0	0
6661	Rodney	20	0	0	0	0	0	0	0
5767	Simcoe	75	0	0	0	0	0	0	0
6648	Garry Selection	25	0	0	0	0	0	0	0
6662	Garry (Improved) R.L.1692-27	20	0	0	0	0	0	0	0
5541	Larain	80	0	0	0	0	0	0	0
5946	Sauk	40	0	0	0	0	0	0	0
5332	Craig	45	0	0	0	0	0	0	0
4988	Mo. O-205	25	0	0	0	0	0	0	0
5647	Clarion: Clinton x Marion	90	0	0	0	0	0	0	0
5441	Clinton x Marion	90	0	0	0	0	0	0	0
5440	"	90	0	0	0	0	0	0	0
4259	Clinton "59" (Check)	90	0	0	0	0	0	0	0
560	Victory (Check)	80	10	15	0	.05	0	0	0
4372	Shelby (Check)	70	30	0	0	0	0	0	0
3502	Tama (Check)	12	0	0	0	0	0	0	0
5347	(Bond-Anthony) x Overland	25	10	0	0	0	0	0	0
6613	"	40	0	0	0	0	0	0	0
5346	Clinton x Overland ²	50	0	0	0	0	0	0	0
6611	Park: Clinton x Overland ²	40	0	0	0	0	0	0	0
6644	Clinton ² x Ark. 674	5	0	0	0	0	0	0	0
6641	Clinton ² x (Boone-Cartier)	25	0	0	0	0	0	0	0
6649	Santa Fe x Bonham: 3665-5	10	0	0	0	0	0	0	0
6771	" : 3665-3	tr	0	0	0	0	0	0	0
5768	Bonda x Santa Fe: 3699-7	tr	0	0	0	0	0	0	0
5776	Santa Fe x Benton: 3976-5	35	0	0	0	0	0	0	0
5777	" : 2978-3	30	0	0	0	0	0	0	0
5869	Clinta fe: Santa Fe x Clinton	35	0	0	0	0	0	0	0
4327	Mohawk (Check)	90	0	0	0	0	0	0	0
5779	Benton x Santa Fe: 4165-2	30	0	0	0	0	0	0	0
5780	" : 4207-1	20	0	0	0	0	0	0	0
5700	Clinton ⁴ x Landhafer	tr	50	0	0	0	0	0	0
5701	Clintonland: Clinton ⁴ x Landhafer	10	0	0	0	0	0	0	0

1/ Average of station, .74, substituted for missing data.

Table 8. Summary data obtained on the
Uniform Northeastern States Oat Experiment
grown in 1953

Rank in Yield	C.I. No.	Variety or Selection	Yield	Test	Height	Lodg-	Headed
			(8 Sta) Bu.	Wt. (5 Sta) Lbs.	(5 Sta) Ins.	ing (4 Sta) %	(4 Sta) Date
1	6662	Improved Garry	59.8	32.6	38.0	2.0	7/8
2	6661	Rodney	58.2	32.8	39.0	5.3	13
3	6648	Garry Selection	57.5	31.8	38.8	3.3	8
4	6767	Simcoe	56.9	32.7	40.0	9.5	8
5	5946	Sauk	56.9	33.5	38.2	10.0	9
6	5647	Clarion:Clinton-Marion	56.6	33.4	36.8	.5	4
7	5332	Craig	56.1	32.4	32.4	14.3	12
8	6768	Bonda x Santa Fe	55.6	30.9	35.6	6.0	3
9	6641	(Clinton-Boone) x Cartier	55.6	34.2	39.0	9.3	10
10	6777	Santa Fe x Benton	55.1	31.5	35.0	27.8	3
11	5441	Clinton x Marion	54.4	34.5	37.6	9.3	7
12	4988	Mo. 0-205	54.4	33.7	37.8	17.3	3
13	6541	Larain	54.1	34.6	39.2	2.0	8
14	4157	Ajax (check)	53.8	32.0	39.6	15.8	9
15	5226	Fortune	53.7	32.1	39.8	13.8	12
16	4372	Shelby (check)	53.1	34.4	37.4	12.8	8
17	3502	Tama (check)	52.6	32.6	34.4	21.0	6
18	6776	Santa Fe x Benton	51.9	31.4	34.0	28.8	3
19	4521	Beaver	51.8	31.8	38.6	5.0	9
20	6701	Clintland	51.8	34.3	34.6	.8	5
21	6613	(Bond-Anthony) x Overland	51.3	30.5	38.2	1.8	12
22	4158	Exeter	51.1	31.1	37.0	6.0	14
23	6700	Clinton ⁴ x Landhafer	50.6	34.2	34.4	4.5	4
24	4259	Clinton "59" (check)	50.1	34.4	35.4	2.0	5
25	6644	Clinton ² x (Ark. 674)	49.6	33.4	34.0	17.8	3
26	4134	Roxton	49.5	29.5	41.4	13.3	14
27	4327	Mohawk (check)	49.0	34.5	34.0	2.0	6
28	5440	Clinton x Marion	48.6	34.2	36.8	2.0	5
29	6771	Santa Fe x Bonham	47.8	31.2	40.4	2.5	3
30	560	Victory (check)	47.8	31.0	40.0	7.3	14
31	5869	Clintafe	47.0	33.0	35.4	1.0	8
32	6649	Santa Fe x Bonham	46.6	31.0	39.0	2.5	2
33	5347	(Bond-Anthony) x Overland	46.1	32.2	37.0	5.5	11
34	6780	Benton x Santa Fe	44.7	31.9	37.6	43.5	5
35	6779	Benton x Santa Fe	44.0	31.8	38.8	23.0	5
36	5346	Clinton x Overland ²	43.9	31.7	36.6	6.8	11
37	6611	Park:Clinton x Overland ²	39.0	30.8	35.0	7.5	11

NORTH CENTRAL REGION

Although drought and unfavorable weather conditions were primarily responsible for somewhat disappointing oat yields in parts of South Dakota, Nebraska, Kansas, Missouri and Illinois in 1953, much of the North Central Region was headed for an above average oat crop until crown and stem rust infection appeared. Losses from crown rust in Iowa, Minnesota, Wisconsin and some nearby areas were the heaviest since 1941, while losses from stem rust were the heaviest since 1926. Crown and stem rust together caused an estimated loss of 95 million dollars to the Iowa oat crop, resulting in an average yield of only 26 bushels per acre which was the lowest since the serious drought year of 1934. The average yield of 31.5 bushels per acre in Minnesota in 1953 was the lowest since the bad drought year of 1936.

During the last ten years the North Central Region has produced 82 percent of the average national oat crop with an average of 79 percent of the national acreage. In 1953 this region produced only 78 percent of the national oat crop on 79 percent of the total oat acreage. The average yield per acre of oats in the North Central Region was 31 bushels in 1953 compared with an average for the past ten years of 33 bushels.

Race 202 and other races of crown rust, to which Bond and its derivatives are susceptible, and race 7 of stem rust, to which all named Bond derivatives except Andrew and Eaton are susceptible, apparently were the predominating races in the North Central Region in 1953. Varieties susceptible to either or both rusts were relatively lower than normal in yield in areas of heavy rust infection.

Except for the unusually heavy crown and stem rust infection in certain areas, diseases did not appear to be an important factor limiting maximum oat production in the region in 1953. There was some evidence of Septoria black stem damage in eastern South Dakota. Possibly the damage from Septoria may have been overlooked or underestimated in the areas of heavy rust infection because the symptoms were masked to a considerable extent by both rusts.

North Central States Uniform Oat Nursery

The 1953 North Central uniform oat yield nurseries represented a consolidation of the Midseason and Early Maturing uniform oat nurseries grown in previous years. Of the 40 entries in 1953, 21 were new, 11 were continued from the 1952 Early Maturing Nursery, 5 were from the 1952 Midseason nursery, and 3 were in both the Early and Midseason nurseries in 1952. Data for 1953 are included in tables 9 to 17, inclusive.

The 1953 North Central nursery was grown on 16 stations in the North Central Region and on one station each in the Western and Northeastern Regions listed below.

North Central Region*

Urbana, Illinois
Lafayette, Indiana
Ames, Iowa
Kanawha, Iowa
Manhattan, Kansas
St. Paul, Minnesota
Columbia, Missouri
Lincoln, Nebraska

Dickinson, North Dakota
Fargo, North Dakota
Langdon, North Dakota
Minot, North Dakota
Columbus, Ohio
Wooster, Ohio
Brookings, South Dakota
Madison, Wisconsin

Western Region

Moccasin, Montana

Northeastern Region

Beltsville, Maryland

Yield, Bushels per Acre

Half of the 40 entries averaged 60 bushels or more at the 16 locations in the North Central Region in 1953, and only two averaged less than 50 bushels per acre. These results would indicate that the 1953 oat production in the North Central Region would have been greatly increased had more farmers been growing one or more of these higher yielding varieties. The five highest yielding entries were Sauk, Mo. 0-205, Andrew, Simcoe and Improved Garry. The six lowest yielding entries were C. I. 6770, Park, Clinton 59, C. I. 6769, Gopher and Shelby. Shelby and Park were in 1st and 5th places for yield in the 1952 Midseason nursery and in 35th and 39th places, respectively, in the 1953 North Central nursery.

With the exception of Andrew x Clinton, C. I. No. 5967 (in sixth place), the 14 highest yielding entries in 1953 were resistant to prevalent race 7 of stem rust, while with the exception of Park (heavily damaged at several locations by Helminthosporium victoriae) the 13 lowest yielding entries were susceptible to race 7. It was obvious there was a much higher positive correlation between high yield and resistance to stem rust than there was between high yield and resistance to crown rust. This is in contrast to the generally higher estimated losses from crown rust.

Test Weight

All stations in the North Central region reporting on yield also reported test weights. The average test weights for the Region ranged from 33.1 pounds per bushel for Clinton x Ukraine, C. I. 6537 (in eighth place for yield) to only 26.9 pounds for Park (severely damaged by Helminthosporium victoriae at several locations).

* The nursery was grown at East Lansing, Mich., but it was not harvested.

Other high testing entries were C. I. 6752, Mo. O-205, Waubay and C. I. 6700 with weights of 32.6, 32.5, 32.5 and 32.1 pounds per bushel, respectively. Normally high test weight entries such as Shelby, Clinton, Gopher and C. I. Nos. 6769 and 6770, were low because of rust damage. Although Park was resistant to both rusts its normally high test weight was greatly reduced by H. victoriae.

Plant Height

Oats grew relatively short in the North Central Region in 1953 as a result of drought, early rust infection, and other unfavorable growing conditions. Data on plant height were received from 13 of the 16 North Central Stations. The tallest entries were Garry, Rodney, C. I. 6649, Simcoe, Ajax and C. I. 6774 with average heights of 35 to 36 inches. With the exception of C. I. 6649, the tallest entries were all of Canadian origin, or partly of Canadian origin.

Standing Ability

Lodging was recorded at 12 of the North Central stations in 1953, and was severe at all of these except Madison, Wisconsin. Entries most outstanding for stiff straw were C. I. 6772, Rodney, Garry, C. I. 6642 and C. I. 6649, with averages of 23, 24, 26, 27 and 32 percent lodging, respectively. The weakest strawed entries were Gopher, C. I. 6539, Shelby, C. I. 6769 and Tama with average lodging of 68, 64, 60, 50 and 56 percent, respectively. Park was relatively weak strawed in 1953, whereas it was in second place for straw strength in the 1952 Midseason nursery - again illustrating the effect of heavy H. victoriae infection.

The amount of lodging often was closely related to the amount of rust infection. Inherently stiff-strawed entries such as Clinton 59 tended to maintain their relative straw strength where rust infection was light but were relatively weak strawed when heavily infected with either crown or stem rust. Therefore, the lodging data obtained this past season do not, in general, afford a very good measure of the relative inherent straw strength of the individual entries.

Date Headed

Dates of heading were reported by 15 stations. Landhafer x (Mindo x Hajira-Joanette), C. I. No. 6765, was the earliest heading of all entries with an average heading on June 17. Other early entries were Mo. O-205, Andrew, C. I. 6644, C. I. 6649 and LaSalle with average heading on June 18. The latest heading entries were Rodney, Park and C. I. 6641 with average heading on June 26, 25, and 24, respectively. Other rather late heading (June 23) entries were Sauk, Garry, Ajax, Shelby and C. I. 6770.

Date Ripe

Only 7 of the stations reported date ripe. Date heading and date ripe usually are closely correlated. Premature ripening caused by heavy rust infection upset this relationship in 1953. C. I. No. 6539 ripened on July 20. Other early ripening entries were C. I. 6644, C. I. 6700, LaSalle, C. I. 6748 and Clinton 59 with an average date ripe on July 21. The latest ripening entry was Rodney with an average date ripe of July 27. Other late ripening entries were Garry, C. I. 6537, C. I. 6774, C. I. 6641, C. I. 6672 and C. I. 6649, all with an average date ripe on July 25.

Resistance to Disease

Data on infection by stem rust in the replicated North Central yield nurseries were received from 10 locations. Additional information on the reactions of the entries to stem rust were obtained from one race 6 nursery, four race 7 nurseries and three race 8 nurseries; and from greenhouse tests in the seedling stage at Ames, Iowa, with races 6, 7, 7A and 8. Garry, C. I. 6764 and Rodney were outstanding for resistance in the field. Garry, C. I. 6772 and C. I. 6774 were resistant to races 6, 7, 7A and 8 in the seedling stage. C. I. Nos. 6764, 6765 and 6537, and Rodney were susceptible only to race 7A in the seedling stage.

Data on infection by crown rust in replicated yield nurseries at nine locations, smut at three locations, leaf spot at one location, Victoria blight at three locations, and Septoria at one location were obtained. The reaction of all entries to smut in a special smut nursery at Ames, Iowa, also was recorded. Clintland and C. I. Nos. 6649, 6700, 6748, 6749, 6765, 6766, 6764 and 6539, and Tama, were outstanding for resistance to crown rust with average crown rust coefficients of 1, 2, 3, 5, 5, 6, 6, 7, 7 and 7 percent, respectively.

Percent of Hulls and Seed Fluorescence

The percentage of hulls in grain samples of each entry grown at Kanawha, Iowa, with heavy crown and stem rust infection; and at Aberdeen, Idaho, under rust-free conditions were determined at Ames, Iowa. Except for rust resistant entries the hull percentages were generally much higher in seed from Kanawha where both crown and stem rust infection was heavy. C. I. 6765, C. I. 6537, C. I. 6772, Mo. 0-205, Andrew and C. I. 6764 were the lowest in percent hulls at Kanawha with hull percents of 23, 24, 24, 25, 27 and 27, respectively. The highest percent hulls at Kanawha was 52 percent for Park. Clintland and C. I. No. 6765 were the lowest in hull percent at Aberdeen with 23 and 24 percent, respectively. Six entries at Aberdeen had only 26 percent hulls, while none was higher than the 37 percent recorded for LaSalle.

The fluorescence (F) or non-fluorescence (NF) of the lemma and palea of seed of all entries grown at Ames and Kanawha, Iowa, and at Aberdeen, Idaho, is recorded.

Table 9. Yields of varieties and selections included in the North Central States Uniform Oat Nursery grown in 1953.

C.I. No.	Variety or Selection	Average 16 No. Stations										Bushels										Observation only									
		Illinois	Ind.	Ames	Iowa	Kanawha	Iowa	Manhattan	Kansas	St. Paul	Minnesota	Columbia	Missouri	Lincoln	Nebraska	Dickinson	Fargo	Langdon	North Dakota	Minot	Columbus	Wooster	Ohio	Brookings	South Dakota	Madison	Wisconsin	Montana	Beltsville	Maryland	
6754	Land. x (Mindo x H.-J.)	44.5	71.9	71.1	83.0	43.0	77.2	41.2	31.1	73.2	52.2	64.0	64.7	59.8	32.0	61.62/81.0	45.4	37.6													
6755	Land. x (Mindo x H.-J.)	49.8	84.1	73.9	72.9	44.2	84.9	46.8	31.9	69.2	51.6	53.4	70.2	66.1	54.9	72.52/75.7	41.8	40.4													
6700	Clinton ⁴ x Landhafer	45.1	76.9	57.4	64.1	43.0	62.0	37.9	24.7	65.1	48.2	75.4	57.2	80.9	33.6	76.8	39.0	34.2													
6701	Clinton ⁴	46.7	66.8	73.3	67.7	42.4	55.9	45.4	24.5	68.1	54.4	63.0	54.6	71.4	45.1	80.6	46.7	34.8													
6748	Clinton ⁴ x Santa Fe	45.2	74.1	61.3	64.8	36.2	60.9	40.3	29.9	66.8	41.4	59.0	60.3	74.3	42.9	70.7	38.2	31.6													
6539	Clinton ³ x Santa Fe	46.6	82.0	64.9	61.9	42.4	63.3	47.5	33.2	60.9	52.4	67.8	58.8	78.8	38.3	76.6	28.7	35.8													
6749	Early Clintafe	44.1	79.7	48.5	61.8	38.4	69.1	36.1	23.1	79.7	43.6	61.4	77.3	65.4	28.8	80.6	44.9	24.2													
6766	Clintafe Purification	43.5	62.5	58.1	62.0	38.4	79.8	35.4	23.9	68.4	40.4	74.4	73.6	59.8	35.4	70.2	66.1	21.8													
6543	Clinton ² x Ark. 674	47.1	75.3	58.6	68.5	45.0	72.7	40.3	26.5	73.5	53.2	63.8	66.5	69.1	36.3	89.5	68.0	36.2													
4259	Clinton ⁵⁹ (ck)	48.0	74.5	40.8	53.2	44.4	47.6	43.7	22.7	73.1	50.4	64.0	56.7	66.8	33.0	69.1	60.6	43.9													
6644	Clinton ² x Ark. 674	55.4	80.2	99.1	64.2	47.2	61.8	43.7	35.8	66.8	53.0	55.0	64.6	79.8	34.7	87.6	65.5	34.0													
5940	Clinton x (Bo.-Car.)	55.4	87.0	62.3	73.2	34.0	50.3	48.0	33.4	77.0	48.4	55.8	73.3	72.0	33.2	74.5	90.6	32.3													
6641	Clinton x (Bo.-Car.)	48.9	79.5	53.8	74.7	38.4	52.8	45.8	30.0	74.8	59.4	61.6	68.1	70.1	31.2	53.42/97.7	36.6	35.0													
6642	Mem. x (Cl. x Bo.-Car.)	52.0	92.4	79.5	65.2	30.2	57.5	41.5	17.9	73.7	72.2	58.6	65.8	89.4	35.6	83.5	82.1	39.2													
5537	Clinton x Ukraine	51.8	73.4	73.5	84.0	51.4	69.8	54.1	25.1	85.9	71.0	61.2	76.6	74.3	36.6	66.92/81.9	37.3	36.6													
5752	Beacon x (Hawk.-Vict.)	51.4	83.5	77.3	86.0	48.4	80.9	40.8	18.9	73.7	54.0	56.4	74.2	81.9	37.2	59.42/84.8	51.8	33.6													
5946	Sauk	60.5	78.3	79.1	83.8	55.6	77.1	43.5	33.6	86.7	66.2	59.4	71.8	83.0	41.7	97.2	91.5	33.8													
6767	Simcoe	56.5	96.0	83.5	87.1	45.8	82.6	36.2	19.0	93.9	58.6	74.2	74.5	68.6	44.0	68.0	102.6	46.7													
6661	Rodney	54.8	67.5	67.8	68.8	23.2	83.0	48.0	27.2	99.9	54.0	61.4	73.8	69.4	54.4	54.52/88.2	28.9	23.4													
4372	Shelby (ck)	48.4	76.0	46.0	47.1	34.2	67.8	40.3	23.4	79.7	45.8	63.4	74.8	74.8	36.4	33.62/75.5	36.5	21.4													
5440	Clinton x Marion	59.2	85.6	60.8	67.8	53.2	74.7	48.0	27.4	72.1	51.8	77.2	58.9	76.9	44.3	86.2	81.4	38.9													
5441	Clinton x Marion	54.1	80.8	56.6	69.8	35.8	51.4	48.0	27.2	99.9	54.0	61.4	73.8	69.4	54.4	54.52/88.2	28.9	23.4													
5647	Clarion	59.5	77.0	63.8	73.2	50.2	69.4	48.6	27.8	76.1	55.4	56.8	61.8	74.2	54.0	67.6	65.2	39.6													
5628	LaSalle	56.3	56.5	47.4	44.1	49.8	52.9	45.1	34.3	75.9	54.6	56.0	66.0	78.2	39.0	67.6	65.2	29.4													
4170	Andrew (ck)	56.5	94.3	81.5	70.6	49.8	67.9	57.3	37.5	82.5	53.6	70.2	78.0	91.5	47.6	61.9	87.3	30.1													
5636	Andrew x Clinton	59.5	83.5	57.3	55.7	39.0	65.3	41.2	22.3	94.1	53.0	68.0	78.8	78.4	32.5	72.9	78.2	47.8													
5966	Andrew x Clinton	57.3	86.3	51.6	53.3	48.6	57.0	47.1	23.9	77.7	58.0	56.8	73.2	86.2	51.7	77.2	74.4	40.5													
5967	Andrew x Clinton	54.7	95.7	78.9	53.8	51.6	66.7	48.0	34.6	85.2	60.2	68.0	73.4	69.1	47.0	78.9	73.8	36.5													
4988	Mo. O-205	43.9	86.8	66.6	88.1	55.2	84.1	52.6	48.0	77.5	66.8	53.2	71.6	80.8	43.6	100.8	85.3	31.7													
2027	Gopher (ck)	42.0	75.1	42.5	54.6	31.6	55.3	37.6	30.7	82.3	34.2	64.6	79.3	61.8	29.5	76.4	68.5	33.7													
3502	Tama (ck)	47.5	46.9	79.5	86.4	46.0	26.2	49.8	43.0	82.1	71.4	57.4	61.8	53.4	22.9	82.5	80.1	39.3													
5611	Park	29.3	41.5	37.8	33.6	48.8	16.4	47.6	29.3	81.9	55.8	64.0	71.1	53.8	30.7	40.62/83.3	35.6	16.8													
5769	Huron x Kent	46.4	74.8	39.1	44.6	41.0	54.7	41.3	20.4	76.8	26.2	74.0	64.2	71.8	33.5	71.6	76.0	25.6													
5770	Huron x Kent	40.5	71.1	47.3	36.8	30.4	43.3	34.0	14.7	68.8	35.4	50.8	56.7	67.6	46.8	49.02/69.7	44.9	16.4													
5662	Garry (Improved)	54.5	76.9	93.4	77.3	37.4	81.7	39.6	19.3	85.1	62.6	79.4	89.0	78.9	48.6	57.42/91.5	33.4	31.8													
5646	Santa Fe x Bonham	57.2	73.3	62.3	40.9	39.8	73.5	42.9	21.1	73.1	46.8	63.6	62.1	76.0	53.0	48.12/60.7	31.8	24.0													
5772	Garry x (Hawk.-Vict.)	44.7	82.9	64.8	63.4	34.0	74.8	34.2	13.7	64.5	49.0	64.2	78.0	75.1	50.7	57.02/76.8	35.4	33.6													
6773	Andrew x Clinton	55.7	81.5	60.9	58.6	47.2	67.4	49.2	28.3	76.8	46.4	71.8	81.2	75.4	35.3	49.72/88.5	34.1	30.4													
5774	(Beaver-Garry) x Cl.	55.4	76.7	69.6	71.2	34.6	73.5	38.6	18.2	79.7	56.2	82.6	82.2	71.8	49.2	49.72/88.5	43.8	36.8													
4157	Ajax (ck)	45.3	90.3	73.8	85.9	44.8	75.9	40.0	24.5	84.3	60.4	68.8	83.5	69.6	36.9	63.92/92.4	38.8	29.2													

1/ Severe hail damage on July 2. Early varieties hurt relatively more than later ones.
2/ Subjected to weather damage before harvest.

Table 10. Test weight of varieties and selections included in the North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Average No. 15 stations	Urbana Ill.	Lafayette Ind.	Ames Iowa	Kanawha Iowa	Manhattan Kansas	St. Paul Minn.	Columbia Mo.	Lincoln Nebr.	Dickinson N.D.	Barso N.D.	Langdon N.D.	Minot N.D.	Columbus Ohio	Wooster Ohio	Brookings S.D.	Madison Wisc.	Moccasin Mont.
6764	Land. x (Windo x H.-J.)	26.3	22.0	29.6	28.2	27.1	26.4	28.7	25.0	25.0	29.0	23.5	30.0	30.0	21.6	18.2	30.2	25.5	33.0
5765	Land. x (Windo x H.-J.)	29.1	25.0	31.9	30.1	28.5	29.5	28.8	27.0	27.0	27.0	25.0	31.5	30.5	25.3	21.5	30.2	26.9	32.0
6700	Clinton ⁴ x Land.	32.1	29.0	33.8	35.8	31.6	32.4	33.5	32.0	33.0	36.0	28.5	34.0	34.0	29.6	25.5	33.5	31.3	37.5
6701	Clintonland ⁴	32.0	29.0	33.8	35.9	32.3	32.9	34.2	33.0	33.0	35.0	26.0	34.0	33.0	28.7	25.5	34.0	32.0	38.5
5748	Clinton ⁴ x Santa Fe	31.7	29.0	33.6	32.3	30.6	33.1	32.7	32.5	33.0	37.0	26.0	35.0	34.5	30.6	25.7	32.0	30.2	38.5
6539	Clinton ³ x Santa Fe	29.5	27.0	32.4	29.9	28.5	31.5	31.3	30.0	31.0	33.0	21.0	32.0	31.5	27.9	23.9	31.0	30.1	36.5
6749	Early Clintafe	29.8	27.0	30.7	28.8	29.3	29.5	33.2	29.5	32.0	36.0	22.5	32.0	33.5	26.2	23.3	32.0	31.3	37.5
6766	Clintafe Purification	29.7	26.0	30.5	31.0	28.7	29.1	32.7	30.0	31.5	35.0	23.0	32.0	35.0	25.8	23.7	30.8	30.9	37.5
6643	Clinton ² x Ark. 67 ⁴	29.2	26.0	30.1	29.3	27.3	29.1	32.3	28.5	29.0	33.0	26.0	31.5	33.0	26.4	23.3	32.0	30.0	36.5
4259	Clinton ⁵⁹ (ck)	30.9	30.0	32.2	31.4	27.5	32.3	32.0	32.0	33.5	35.0	25.0	34.0	33.0	27.8	26.4	31.5	30.8	38.5
6644	Clinton ² x Ark. 67 ⁴	30.8	29.0	32.4	31.1	28.8	32.7	32.3	30.5	30.0	32.0	30.0	32.5	32.5	29.6	27.2	31.8	30.9	38.0
5940	Clinton x (Bo.-Car.)	30.7	26.0	31.2	30.2	32.1	28.5	32.5	31.5	29.5	35.0	21.5	36.0	35.0	30.2	26.4	33.2	31.2	36.5
6641	Clinton x (Bo.-Car.)	30.6	26.0	33.2	31.5	31.5	28.4	33.7	31.0	31.5	35.0	21.0	37.0	32.5	33.0	20.2	32.8	31.0	36.5
6642	Rem. x (Cl. x Bo.-Car.)	32.0	31.0	33.9	32.7	32.5	25.5	33.3	32.0	31.5	37.0	31.5	35.0	34.0	28.8	27.2	34.0	32.8	39.0
6537	Clinton x Uksine	33.1	29.0	33.3	34.4	34.1	34.0	33.3	33.5	35.5	38.0	30.0	38.0	37.0	28.1	24.8	34.2	32.0	40.5
6752	Beacon x (Hawk.-Vict.)	32.6	30.0	33.2	31.5	33.0	31.5	34.7	31.5	34.0	38.0	28.0	36.0	35.5	29.2	25.5	35.0	35.0	39.5
5946	Sauk	29.5	27.0	30.1	28.1	29.4	28.2	31.0	27.5	30.0	36.0	24.0	35.0	34.0	26.3	21.9	31.8	31.5	38.5
6767	Simcoe	29.2	25.0	30.4	32.0	30.6	26.1	32.0	27.5	31.5	34.0	22.0	35.0	31.0	23.8	20.5	34.0	31.0	36.5
6661	Rodney	29.5	27.0	30.4	32.4	28.2	20.4	34.0	29.0	27.5	33.0	25.5	37.0	35.5	24.1	24.1	30.8	32.6	37.0
4372	Shelby (ck)	30.2	24.0	33.2	28.8	26.2	29.9	34.0	31.0	32.5	37.0	22.5	35.0	34.5	27.5	22.8	32.0	31.9	39.0
5440	Clinton x Marion	32.5	30.0	34.7	32.4	32.5	32.2	34.7	33.0	33.0	37.0	27.5	35.5	35.0	29.6	26.7	33.8	32.5	38.5
5441	Clinton x Marion	31.7	28.0	32.2	33.0	31.6	31.5	32.0	32.5	32.5	37.0	26.5	35.5	35.0	28.2	23.4	33.5	34.4	39.5
5647	Clarion	31.9	30.0	35.2	31.9	31.1	31.0	34.7	33.0	32.0	36.0	29.5	34.0	33.0	28.3	25.2	33.0	32.0	39.0
5628	LeSalle	30.1	29.0	31.3	28.5	25.8	31.0	31.3	34.0	30.5	35.0	25.0	31.0	31.5	30.4	25.1	31.5	29.9	36.5
4170	Andrew (ck)	31.6	29.0	34.3	32.5	30.6	32.5	32.5	32.5	32.0	35.0	29.5	35.0	33.0	29.6	24.2	33.5	30.5	37.5
5636	Andrew x Clinton	27.9	25.0	29.0	28.2	23.7	26.7	29.7	31.5	29.5	35.0	25.0	31.0	31.0	23.7	20.9	28.5	28.3	36.0
5966	Andrew x Clinton	30.4	27.0	32.0	31.6	26.0	30.5	32.3	31.0	33.0	38.0	24.5	33.0	34.0	28.1	23.9	33.0	29.0	37.0
5967	Andrew x Clinton	29.0	27.0	29.4	26.6	24.0	31.0	33.0	31.5	32.0	34.0	24.5	32.0	32.5	26.8	22.1	30.0	28.0	38.5
4988	No. O-205	32.5	30.0	34.0	33.4	34.3	32.0	36.0	32.5	31.0	36.0	30.5	34.0	33.5	27.9	25.0	36.0	33.5	37.0
2027	Gopher (ck)	27.3	24.0	27.6	25.4	24.5	24.0	31.3	29.0	26.0	33.0	22.0	33.0	33.0	25.3	19.9	31.0	27.8	35.0
3502	Tama (ck)	29.6	28.0	29.2	30.1	32.8	27.7	28.0	30.0	31.0	33.0	31.0	32.0	32.5	23.5	19.8	33.2	31.7	34.5
6611	Park	26.9	21.0	24.4	20.2	20.9	26.2	24.0	29.0	32.5	36.0	29.0	33.5	32.5	22.7	19.0	28.0	31.3	37.0
6769	Huron x Kent	30.7	29.0	32.2	31.4	27.5	31.8	32.0	32.0	28.0	36.0	26.5	34.0	35.5	28.6	21.5	35.0	30.4	39.0
6770	Huron x Kent	29.3	27.0	31.1	26.3	22.3	30.4	29.7	32.5	31.0	37.0	26.0	36.0	34.5	25.9	--	27.0	28.8	38.5
6662	Garry (Improved)	29.6	25.0	30.7	29.8	29.4	22.0	34.3	27.5	28.0	37.0	29.0	37.5	32.5	23.3	--	32.5	31.5	38.0
6649	Santa Fe x Bonham	30.0	28.0	32.9	27.6	25.8	30.3	33.5	31.0	26.0	37.0	29.5	33.0	33.0	28.6	22.7	31.8	28.7	36.0
6772	Garry x (Hawk.-Vict.)	30.5	28.0	34.5	31.5	32.8	27.0	35.7	30.0	18.0	35.0	31.0	36.0	33.0	27.3	24.3	34.5	29.7	36.0
6773	Andrew x Clinton	29.7	27.0	29.9	27.5	28.2	29.0	32.3	34.0	32.5	36.0	26.0	33.5	32.5	26.1	21.5	29.8	29.5	37.0
6774	(Beaver-Garry) x Cl.	31.0	27.0	34.6	30.8	31.1	26.5	34.0	31.0	30.0	37.0	30.0	37.0	33.5	26.5	22.7	33.2	30.7	38.5
4157	Ajax (ck)	28.4	22.0	31.7	28.5	31.2	25.1	33.7	28.0	25.5	34.0	25.0	32.5	32.0	22.8	18.7	33.5	29.7	36.0

1/ Observation only

Table //, Plant height of varieties and selections included in the North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Average No. 13 Stations	Ill.	Ames	Iowa	Kanawha	Iowa	Manhattan	Kansas	St. Paul	Winn.	Columbia	Mo.	Lincoln	Nebraska	Dickinson	N.D.	Bargo	Langdon	N.D.	Minot	S.D.	Brookings	Madison	Wis.	Woccasin	Mont.	Beltsville	Maryland
6754	Land. x (Mindo x H.-J.)	32	30	34	33	33	29	33	32	29	36	35	33	33	33	35	30	30	30	30	30	30	30	30	30	30	30	30	37
6765	Land. x (Mindo x H.-J.)	33	30	36	31	29	35	35	36	28	39	35	34	33	33	38	27	27	27	27	27	27	27	27	27	27	27	27	39
6700	Clinton ¹ x Landhafer	32	31	34	31	31	31	37	33	26	37	35	34	30	32	30	32	27	27	27	27	27	27	27	27	27	27	27	39
6701	Clinton ¹	31	28	33	32	30	34	30	34	25	37	34	31	30	33	33	30	23	23	23	23	23	23	23	23	23	23	23	36
6748	Clinton ¹ x Santa Fe	30	25	32	31	28	35	35	28	27	36	35	35	30	33	30	26	26	26	26	26	26	26	26	26	26	26	26	38
6539	Clinton ¹ x Santa Fe	31	29	33	32	28	35	37	29	24	37	34	33	33	33	37	27	27	27	27	27	27	27	27	27	27	27	27	37
6749	Early Clintefe	32	29	34	33	29	37	30	36	28	25	36	33	35	33	37	30	29	29	29	29	29	29	29	29	29	29	29	39
6753	Clinton ² x Ark. 674	32	30	35	34	30	36	34	31	27	37	35	35	32	35	35	27	27	27	27	27	27	27	27	27	27	27	27	38
6643	Clinton ² x Ark. 674	32	31	33	32	30	34	31	34	25	35	34	31	30	32	35	25	25	25	25	25	25	25	25	25	25	25	25	36
4259	Clinton ² x Ark. 674	31	31	32	32	31	32	31	36	31	28	34	32	31	30	31	25	25	25	25	25	25	25	25	25	25	25	25	36
6644	Clinton ² x Ark. 674	30	28	34	28	29	34	31	34	31	28	34	32	31	30	31	25	25	25	25	25	25	25	25	25	25	25	25	36
5940	Clinton x (Bo.-Cart)	33	31	35	33	31	37	33	33	33	37	33	33	30	33	36	29	29	29	29	29	29	29	29	29	29	29	29	40
6641	Clinton x (Bo.-Cart)	34	31	35	32	32	35	34	32	35	34	32	34	31	32	38	29	29	29	29	29	29	29	29	29	29	29	29	44
6642	Mem. x (Cl. x Bo.-Cart)	30	29	34	28	28	36	36	30	26	36	34	29	30	30	36	26	26	26	26	26	26	26	26	26	26	26	26	40
6537	Clinton x Ukraine	33	29	36	32	31	36	34	31	27	39	36	33	33	32	36	28	28	28	28	28	28	28	28	28	28	28	28	39
6752	Beacon x (Hawk.-Vict.)	33	31	34	33	31	36	31	38	29	25	40	35	34	32	36	31	31	31	31	31	31	31	31	31	31	31	31	39
5946	Sauk	33	30	34	33	31	38	31	42	33	25	40	35	34	32	36	31	31	31	31	31	31	31	31	31	31	31	31	46
6757	Simcoe	35	34	37	35	33	33	33	33	33	25	40	35	34	32	36	31	31	31	31	31	31	31	31	31	31	31	31	46
6661	Rodney	36	34	40	39	32	32	32	32	32	29	40	35	34	32	36	31	31	31	31	31	31	31	31	31	31	31	31	41
4372	Shelby (ck)	34	33	35	34	31	36	31	36	32	31	39	38	31	33	33	33	33	33	33	33	33	33	33	33	33	33	33	42
5440	Clinton x Marion	33	30	35	34	31	38	31	38	29	28	40	39	33	32	35	29	29	29	29	29	29	29	29	29	29	29	29	41
5441	Clinton x Marion	34	32	35	34	31	38	31	38	29	28	40	39	33	32	35	29	29	29	29	29	29	29	29	29	29	29	29	43
5547	Clarion	33	31	33	32	30	34	33	33	29	29	40	36	33	34	35	30	31	31	31	31	31	31	31	31	31	31	31	40
5628	LaSalle	32	30	33	32	28	35	35	30	30	30	40	37	33	30	31	29	29	29	29	29	29	29	29	29	29	29	29	38
4170	Andrew (ck)	33	28	36	31	28	34	34	34	34	28	40	37	33	33	35	29	29	29	29	29	29	29	29	29	29	29	29	38
5636	Andrew x Clinton	33	30	35	31	30	36	31	36	31	29	41	37	33	33	35	29	29	29	29	29	29	29	29	29	29	29	29	39
5956	Andrew x Clinton	33	29	35	32	29	36	31	36	31	28	38	40	32	33	33	29	29	29	29	29	29	29	29	29	29	29	29	37
5957	Andrew x Clinton	32	28	32	30	29	36	31	36	31	29	40	38	30	33	33	28	28	28	28	28	28	28	28	28	28	28	28	38
4988	No. 0-205	34	31	35	32	30	36	31	36	31	31	40	39	31	35	36	28	28	28	28	28	28	28	28	28	28	28	28	40
2027	Gopher (ck)	33	31	32	32	34	33	34	34	31	31	37	39	33	33	35	33	33	33	33	33	33	33	33	33	33	33	33	40
3502	Tama (ck)	30	25	32	27	28	34	34	34	29	25	36	40	31	31	35	33	33	33	33	33	33	33	33	33	33	33	33	39
6511	Park	32	28	33	32	29	36	36	36	29	25	36	40	31	31	35	32	32	32	32	32	32	32	32	32	32	32	32	39
6759	Huron x Kent	33	30	36	30	31	35	35	30	26	43	37	37	32	32	35	29	29	29	29	29	29	29	29	29	29	29	29	38
6770	Huron x Kent	35	31	36	34	31	40	41	31	27	42	41	43	33	35	38	31	30	30	30	30	30	30	30	30	30	30	30	42
6652	Garry (Improved)	36	31	38	36	31	42	42	34	27	41	43	44	33	35	39	34	34	34	34	34	34	34	34	34	34	34	34	44
5549	Santa Fe x Bonham	36	32	37	33	32	38	36	36	32	45	44	44	32	36	39	29	29	29	29	29	29	29	29	29	29	29	29	42
6772	Garry x (Hawk.-Vict.)	32	30	35	33	30	39	39	32	26	39	36	39	29	33	33	29	29	29	29	29	29	29	29	29	29	29	29	39
6773	Andrew x Clinton	33	31	34	30	30	35	35	32	26	38	39	38	32	33	35	28	28	28	28	28	28	28	28	28	28	28	28	38
6774	(Beaver-Garry) x Cl.	35	30	35	33	32	39	31	31	27	39	42	41	33	35	38	35	35	35	35	35	35	35	35	35	35	35	35	43
4157	Ajax (ck)	35	31	34	34	34	40	40	32	26	44	41	41	35	35	39	32	32	32	32	32	32	32	32	32	32	32	32	44

1/ Observation only

Table 13. Date of heading of varieties and selections included in the North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Ave. H.O. 15 Stations	Urbana Ill.	Lafayette Indiana	Ames Iowa	Manhattan Kansas	St. Paul Minn.	Columbia Mo.	Lincoln Nebraska	Dickinson W.D.	Fargo N.D.	Langdon N.D.	Minot N.D.	Columbus Ohio	Wooster Ohio	Brookings S.D.	Madison Wisconsin	Beltsville Maryland
6754	Land. x (Lindo x H.-J.)	6/19	6/9	6/11	6/20	5/30	6/21	6/9	6/9	5/30	7/14	7/7	7/11	6/9	6/14	6/21	6/19	6/13
6755	Land. x (Lindo x H.-J.)	17	8	8	15	29	19	6	9	30	10	8	9	5	12	21	13	10
6700	Clinton ⁴ x Landhafer	19	10	11	17	31	21	9	11	31	12	8	11	9	14	22	16	11
6701	Clinton ⁴	19	9	11	19	31	20	8	11	31	12	9	11	10	13	22	16	12
6748	Clinton ⁴ x Santa Fe	20	8	10	20	31	21	9	10	34	12	10	11	8	13	22	18	12
6739	Clinton ⁴ x Santa Fe	20	8	10	19	32	21	7	10	34	13	9	11	8	13	22	18	11
6749	Early Clintafe	22	12	14	22	33	24	8	14	34	15	12	12	12	19	23	19	15
6766	Clintafe Purification	22	12	14	22	33	24	9	14	35	14	12	13	12	19	24	20	17
6743	Clinton ² x Ark. 674	22	11	13	22	33	23	9	14	35	13	10	12	12	15	24	19	15
4259	Clinton ⁵⁹ (ck)	20	9	12	19	32	21	9	13	31	12	9	11	11	14	22	16	15
6744	Clinton ² x Ark. 674	18	8	9	16	30	19	8	9	30	12	8	10	5	13	19	16	12
5940	Clinton x (Bo.-Car.)	21	12	13	16	33	25	9	13	36	16	10	13	3	13	19	19	12
6341	Clinton x (Bo.-Car.)	24	13	15	25	33	28	8	13	39	18	12	14	12	16	27	22	14
6842	Nemana x (Cl. x Bo.-Car.)	20	9	11	17	32	22	9	10	31	13	9	10	8	14	22	19	12
6537	Clinton x Ukraine	19	8	11	16	31	23	7	10	34	13	8	11	8	13	22	16	9
6752	Beacon x (Hawk.-Vict.)	21	9	12	21	33	24	9	11	35	15	7	13	7	14	25	20	10
6946	Sauk	23	12	14	25	33	28	9	13	35	16	12	13	8	19	25	22	10
6767	Simcoe	22	12	14	21	33	25	9	12	34	15	10	13	12	18	25	21	13
6851	Rodney	26	13	17	27	36	29	9	19	41	18	14	14	16	21	30	23	15
4372	Shelby (ck)	23	11	13	24	32	26	9	13	36	15	10	11	12	19	27	21	13
5440	Clinton x Marion	21	11	13	21	33	21	8	13	34	12	10	12	12	14	23	18	12
5441	Clinton x Marion	21	12	13	21	33	23	9	14	34	12	11	12	12	15	24	18	12
5847	Clarion	20	10	12	20	32	20	9	13	31	12	10	11	10	13	23	17	12
5828	LaSalle	18	8	8	16	31	18	7	10	30	11	10	11	5	12	19	13	10
4170	Andrew	18	8	8	16	31	19	9	8	31	11	8	11	4	12	20	15	10
5836	Andrew x Clinton	20	9	12	20	32	20	9	12	34	12	10	11	10	15	22	18	12
5966	Andrew x Clinton	19	9	10	17	32	21	8	10	31	12	9	11	6	14	22	17	12
5967	Andrew x Clinton	20	9	11	17	32	25	8	10	31	13	10	12	8	13	23	18	12
4988	Mo. O-205	18	8	9	16	31	19	7	8	30	10	9	9	5	12	20	18	10
2027	Gopher (ck)	21	12	13	19	34	23	9	14	34	13	10	11	8	15	23	21	12
3502	Tama (ck)	20	9	11	17	33	24	8	8	34	14	9	10	8	14	23	22	10
5511	Park	25	13	15	24	34	29	9	14	40	18	14	14	12	21	28	26	15
6769	Huron x Kent	20	10	11	18	32	20	9	12	31	12	10	10	8	14	23	18	13
6770	Huron x Kent	23	11	13	23	34	23	9	15	35	13	13	12	12	19	26	21	15
6652	Garry (Improved)	23	12	13	24	34	26	9	13	35	15	12	13	12	19	27	22	14
6849	Santa Fe x Bonham	18	8	9	15	29	19	6	9	31	12	9	10	5	13	21	14	10
5772	Garry x (Hawk.-Vict.)	21	10	11	20	33	23	8	12	34	15	9	14	6	13	23	20	12
6773	Andrew x Clinton	20	9	11	17	31	21	8	11	34	14	10	11	7	16	23	18	11
6774	(Beaver-Garry) x Cl.	22	12	12	21	33	25	8	13	35	14	10	13	8	18	23	22	13
4157	Ajax (ck)	23	13	13	20	33	27	9	15	37	14	12	12	11	19	27	22	13

1/ Observation only

Table 14. Date of ripening of varieties and selections included in the North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Average No of Stations	Ames Iowa	St. Paul Minn.	Lincoln Nebraska	Dickinson N.D.	Minot N.D.	Brookings S.D.	Madison Wisconsin	Beltville Maryland
6764	Land. x (Mindo x H.-J.)	7/24	7/18	7/22	7/3	8/5	8/14	7/25	7/21	8/6
6765	Land. x (Mindo x H.-J.)	24	17	22	3	5	14	25	18	9
6700	Clinton x Landhafer	21	12	17	3	3	13	23	17	6
6701	Clinton	22	13	17	3	3	13	23	17	6
6748	Clinton ⁴ x Santa Fe	21	10	16	2	3	12	23	16	5
6539	Clinton ³ x Santa Fe	20	11	16	2	3	10	22	17	6
6749	Early Clintafe	22	14	20	3	4	12	25	17	6
6766	Clintafe Purification	22	14	18	3	4	12	26	18	6
6643	Clinton ² x Ark. 674	22	14	18	4	4	13	23	17	5
4259	Clinton 59 (ck)	21	10	16	3	3	13	22	17	7
6644	Clinton ² x Ark. 674	21	13	16	2	3	11	23	17	5
5940	Clinton x (Bo.-Car.)	23	14	22	3	5	16	24	18	8
6641	Clinton x (Bo.-Car.)	25	17	23	3	5	17	26	20	9
6542	Nemaha x (Cl. x Bo.-Car.)	23	14	20	7	3	13	23	18	4
6537	Clinton x Ukraine	25	17	22	6	9	17	26	20	8
6752	Beacon x (Hawk.-Vict.)	24	14	22	6	3	13	26	19	6
5945	Sauk	24	15	21	5	5	17	25	20	9
6757	Simcoe	23	15	20	6	4	11	25	19	9
6661	Rodney	27	21	23	9	6	17	30	24	9
4372	Shelby (ck)	24	11	19	6	6	17	26	20	8
5440	Clinton x Marion	23	15	18	6	4	15	25	18	6
5441	Clinton x Marion	23	14	18	5	3	15	25	18	5
5647	Clarion	23	15	19	5	3	14	25	19	8
5628	LaSalle	21	8	16	3	3	12	22	19	8
4170	Andrew (ck)	22	16	18	1	3	13	25	19	6
5536	Andrew x Clinton	23	14	18	6	5	14	25	18	7
5966	Andrew x Clinton	22	12	16	4	4	14	25	18	6
5967	Andrew x Clinton	22	12	18	3	4	14	24	18	6
4988	Mo. O-205	22	14	18	2	4	13	24	19	5
2027	Gopher (ck)	22	13	17	3	4	12	25	19	6
3502	Tama (ck)	22	13	16	1	4	12	24	20	4
6611	Park	24	12	17	7	6	17	28	22	9
6769	Huron x Kent	22	10	16	9	4	14	22	19	5
6770	Huron x Kent	24	11	17	8	6	17	26	20	9
6662	Garry (Improved)	25	17	23	8	5	14	26	22	8
6649	Santa Fe x Bonham	25	15	21	8	6	16	26	20	9
6772	Garry x (Hawk.-Vict.)	25	15	22	8	5	15	25	20	9
6773	Andrew x Clinton	22	10	18	4	5	13	24	18	8
6774	(Beaver-Garry) x Cl.	25	15	22	7	6	13	26	22	7
4157	Ajax (ck)	23	14	21	3	6	11	25	19	7

1/ Observation only

Table 15. Reaction to crown rust, smut, leaf spot and Victoria blight of varieties and selections included in the North Central Out Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Crown Rust										Smut				Victoria blight				S. D. (%)
		Average (%)	Stations	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	Lafayette	Ames	
			9 N.C.	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
5764	Land. x (Mindo x H.-J.)	7		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	50
5765	Land. x (Mindo x H.-J.)	6		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	60
6700	Clinton ⁴ x Landhafer	3		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	70
6701	Clinton ⁴	1		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	90
6748	Clinton ⁴ x Santa Fe	5		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6539	Clinton ³ x Santa Fe	7		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6749	Early Clintafe	5		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6766	Clintafe Purification	6		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	60
6643	Clinton ² x Ark. 574	12		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	80
4259	Clinton ⁵⁹ (ck)	44		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	60
6644	Clinton ² x Ark. 674	9		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5940	Clinton x (Bo.-Car.)	23		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	70
6641	Clinton x (Bo.-Car.)	20		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6642	Nemaha x (Cl. x Bo.-Car.)	21		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
6537	Clinton x Ukraine	18		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6752	Beacon x (Hawk.-Vict.)	9		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
5946	Sauk	21		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6767	Simcoe	22		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6661	Rodney	15		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
4372	Shelby (ck)	35		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
5440	Clinton x Marion	33		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5441	Clinton x Marion	42		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	90
5647	Clarion	32		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5628	LaSalle	44		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	90
4170	Andrew (ck)	38		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5536	Andrew x Clinton	36		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5966	Andrew x Clinton	36		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
5967	Andrew x Clinton	38		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
4988	Mo. O-205	19		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	60
2027	Gopher (ck)	39		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	80
3502	Tama (ck)	7		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6611	Park	14		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6769	Huron x Kent	43		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
6770	Huron x Kent	42		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6662	Garry (Improved)	14		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6649	Santa Fe x Bonham	2		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
6772	Garry x (Hawk.-Vict.)	12		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
6773	Andrew x Clinton	30		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
6774	(Beaver-Garry) x Cl.	31		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30
4157	Ajax (ck)	25		T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	60

Table 16.
Adult reaction to natural and artificially induced epaytotics of stem rust under field conditions, and seedling reaction to specific races of stem rust in the greenhouse, of oat varieties and selections included in North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Coefficient of stem rust infection under natural field conditions											Race 6		Race 7				Race 7a		Race 8								
		Average & W.O. Loca. %	Ames Iowa (%)	Kanawha Iowa (%)	Manhattan Iowa (%)	Lincoln Neb. (%)	Dickinson W.D. (%)	Fargo W.D. (%)	Langdon W.D. (%)	Minot W.D. (%)	Wooster Ohio (%)	Brookings S.D. (%)	Beltsville Md. (Type)	Ames Iowa (Type)	Lafayette Ind. (%)	St. Paul Minn. (Type)	Columbia Mo. (%)	Madison Wis. (%)	Ames Iowa (Type)	Lafayette Ind. (%)	St. Paul Minn. (Type)	Columbia Mo. (%)	James Iowa (Type)	G.E.					
																									Field	Field	Field	Field	Field
6754	Land. x (Mindo x H.-J.)	1	0	0	0	MR	0	T	T	10	2	0	3	R	1	2	2	2	3	3	2	R	R	2	2	1	HR	1	0
6755	Land. x (Mindo x H.-J.)	5	0	0	0	MR	0	T	T	20	15	0	5	MR	2	4	2	2	40	40	2	MR	2	2	2	HR	4	1	
6700	Clinton ⁴ x Landhafer	42	30	40	40	S	45	75	75	--	30	3	40	S	4	4	21	S	30	30	2	S	S	30	30	S	15	2	
6701	Clinton ⁴	37	10	30	40	S	40	75	80	--	30	3	30	S	4	4	21	S	40	60	2	S	S	30	30	S	20	2	
6748	Clinton ⁴ x Santa Fe	38	30	40	40	S	40	38	70	40	40	T	40	S	4	4	21	S	40	50	2	S	S	30	30	S	12	2	
6539	Clinton ³ x Santa Fe	39	20	40	40	S	40	38	80	60	55	T	40	S	4	4	21	S	40	60	2	S	S	30	30	S	12	2	
6749	Early Clintafe	39	20	20	20	S	30	75	100	--	30	6	30	S	4	4	18	S	40	60	2	S	S	30	30	S	16	2	
6755	Clintafe Purification	35	5	20	20	S	35	75	80	--	35	T	30	S	4	4	18	S	10	60	2	S	S	30	30	S	18	2	
6543	Clinton ² x Ark. 674	29	10	10	10	S	35	38	70	60	25	3	40	S	4	4	14	S	40	60	2	S	S	30	30	S	18	2	
4259	Clinton 59 (ck)	34	10	20	20	S	45	38	70	--	50	T	40	S	4	4	21	S	20	60	2	S	S	30	30	S	18	2	
6544	Clinton ² x Ark. 674	27	20	20	20	S	40	20	60	30	25	T	32	S	4	4	18	S	20	60	2	S	S	30	30	S	18	2	
5540	Clinton x (Bo.-Car.)	4	0	0	0	R	T	T	10	20	15	0	4	S	4	4	4	S	2	T	2	R	R	2	2	1	40	4	0
6641	Clinton x (Bo.-Car.)	5	0	0	0	MR	T	T	20	30	15	0	4	S	4	4	2	S	2	T	2	R	R	2	2	1	40	4	0
6542	Nemaha x (Cl. X Bo.-Car.)	7	0	0	0	MR	10	T	30	30	10	0	8	S	4	4	8	R	1	1	1	R	R	1	1	1	40	4	0
6537	Clinton x Ukraine	4	0	0	0	MR	1	T	20	30	5	0	5	MR	1	1	2	R	1	1	1	R	R	1	1	1	40	4	0
6752	Seacon x (Hawk.-Vict.)	7	0	0	0	MR	T	T	40	5	10	0	5	S	4	4	4	R	2	1	1	R	R	2	2	1	40	4	0
5946	Sauk	10	0	0	0	MR	0	20	30	40	20	0	5	S	4	4	4	R	1	1	1	R	R	1	1	1	40	4	0
6767	Sincoe	3	0	0	0	MR	0	T	20	30	5	0	2	S	4	4	4	R	1	1	1	R	R	1	1	1	40	4	0
6561	Rodney	2	0	0	0	MR	0	T	20	30	5	0	8	S	4	4	4	R	1	1	1	R	R	1	1	1	40	4	0
4372	Shelby (ck)	31	20	20	20	S	18	38	60	70	60	T	30	S	4	4	8	S	25	20	2	R	R	1	1	1	40	4	0
5440	Clinton x Marion	11	0	0	0	MR	3	10	30	--	35	0	8	S	4	4	8	R	1	1	1	R	R	1	1	1	40	4	0
5441	Clinton x Marion	8	0	0	0	MR	T	T	30	40	25	0	10	S	4	4	8	R	1	1	1	R	R	1	1	1	40	4	0
5647	Clarion	8	0	0	0	MR	T	T	30	40	25	0	8	S	4	4	14	S	15	20	2	R	R	1	1	1	40	4	0
5628	LaSalle	38	20	30	30	S	35	75	70	--	45	T	25	S	4	4	14	S	15	20	2	R	R	1	1	1	40	4	0
4170	Andrew (ck)	11	0	0	0	MS	3	10	40	--	25	0	5	S	4	4	14	MR	2	4	1	R	R	1	1	1	40	4	0
5536	Andrew x Clinton	39	40	40	40	S	35	38	80	--	35	3	40	S	4	4	14	S	10	75	4	S	S	10	10	1	40	4	0
5966	Andrew x Clinton	38	20	40	40	S	50	38	80	--	35	3	40	S	4	4	24	S	10	75	4	S	S	10	10	1	40	4	0
5957	Andrew x Clinton	49	50	61	61	S	55	75	70	--	45	3	35	S	4	4	24	S	15	75	4	S	S	10	10	1	40	4	0
4988	Mo. O-205	8	5	0	0	R	3	T	30	50	15	0	8	S	4	4	24	S	2	1	1	R	R	1	1	1	40	4	0
2027	Gopher (ck)	25	20	20	20	S	11	38	30	30	20	T	28	R	4	4	24	S	10	20	2	R	R	1	1	1	40	4	0
3502	Tama (ck)	7	0	0	0	S	5	T	40	--	5	0	3	S	4	4	15	R	1	1	1	R	R	1	1	1	40	4	0
6511	Park	12	0	0	0	S	25	T	30	60	35	0	4	S	4	4	15	R	1	1	1	R	R	1	1	1	40	4	0
6759	Huron x Kent	34	20	30	30	S	60	20	60	--	35	T	45	S	4	4	20	S	20	60	2	S	S	10	10	1	40	4	0
6770	Huron x Kent	43	30	30	30	S	55	75	70	--	55	T	30	S	4	4	24	S	20	60	2	S	S	10	10	1	40	4	0
6562	Gerry (Improved)	T	0	0	0	R	0	T	2	50	0	0	0	R	0-1	4	4	S	1	T	1	R	R	1	1	1	40	4	0
6569	Santa Fe x Bonham	23	5	10	10	S	18	20	70	60	30	T	32	MS	4	4	20	S	15	30	2	R	R	1	1	1	40	4	0
6772	Garry x (Hawk.-Vict.)	4	0	0	0	MR	T	T	20	30	5	0	8	MR	0	4	18	S	2	50	2	R	R	1	1	1	40	4	0
6773	Andrew x Clinton	39	20	20	20	S	35	75	90	60	5	T	40	S	4	4	4	S	20	50	2	R	R	1	1	1	40	4	0
6774	(Beaver-Garry) x Cl.	8	0	0	0	R	T	T	56	60	5	0	T	R	0	4	18	S	1	T	1	R	R	1	1	1	40	4	0
4157	Ajax (ck)	7	0	0	0	R	0	10	30	--	10	0	3	S	4	4	4	R	1	T	1	R	R	1	1	1	40	4	0

L/ Not included in average

Table 17. Averages of agronomic and pathologic data obtained from stations reporting on North Central States Uniform Oat Yield Nursery grown in 1953.

C.I. No.	Variety or Selection	Yield (16 1/2)	Bu.	Test Weight (16 1/2)	Lbs.	Height (13 1/2)	In.	Logging (12 1/2)	Per cent	Date head (15 1/2)	June	Date ripe (7 1/2)	Grown rust (9 1/2)	Per cent	Stem rust (8 1/2)	Per cent	Hulls Kan.-Iowa	Per cent	Hulls Ab. d.-Ida.	Per cent	Fluorescence (3 1/2)
5946	Sauk	69.3	29.5	33	41	23	24	21	10	29	28	NF	NF								
4988	Mo. 0-205	69.1	32.5	34	45	18	22	19	8	25	26	F	F								
4170	Andrew (ck)	58.8	31.6	33	43	18	22	38	11	27	26	NF	NF								
6767	Simcoe	68.2	29.2	35	45	22	23	22	3	28	28	F	F								
6662	Garry (Improved)	67.0	29.6	35	26	23	25	14	4	30	30	F	F								
5967	Andrew x Clinton	65.0	29.0	32	51	20	22	38	49	37	31	NF	NF								
4157	Ajax (ck)	65.0	28.4	35	48	23	23	25	7	30	30	F	F								
6537	Clinton x Ukraine	64.9	33.1	33	38	19	25	18	4	24	26	F	F								
5440	Clinton x Marion	64.1	32.5	33	34	21	23	33	11	32	28	NF	NF								
5647	Clarion	63.7	31.9	33	42	20	23	32	8	33	29	NF	NF								
6752	Beacon x (Hawk.-Vict.)	63.0	32.6	33	42	21	24	9	7	29	30	F 1/2	F 1/2								
6765	Land. x (Mindo x H.-J.)	62.6	29.1	33	34	17	24	6	5	23	24	F	F								
6774	(Beaver-Garry) x Cl.	62.4	31.0	35	36	22	25	31	8	31	28	F	F								
6642	Nemaha x (Cl. x Bo.-Car.)	62.3	32.0	30	27	20	23	21	7	30	29	NF	NF								
6644	Clinton2 x Ark. 674	62.2	30.8	30	53	18	21	9	27	31	29	NF	NF								
5441	Clinton x Marion	61.7	31.7	34	55	21	23	42	8	36	30	NF	NF								
6773	Andrew x Clinton	61.7	29.7	33	55	20	22	30	39	37	26	NF	NF								
5966	Andrew x Clinton	61.3	30.4	33	52	19	22	36	38	36	29	NF	NF								
5636	Andrew x Clinton	61.2	27.9	33	53	20	23	36	39	34	27	NF	NF								
5940	Clinton x (Bo.-Car.)	60.6	30.7	33	55	21	23	23	4	29	28	F	F								
6661	Rodney	59.9	29.5	36	24	26	27	15	2	32	30	F	F								
6643	Clinton2 x Ark. 674	59.6	29.2	32	45	22	22	12	29	32	29	NF	NF								
6764	Land. x (Mindo x H.-J.)	59.5	26.3	32	55	19	24	7	1	27	27	F	F								
6641	Clinton x (Bo.-Car.)	58.8	30.6	34	52	24	25	20	5	30	28	F	F								
6539	Clinton3 x Santa Fe	58.4	29.5	31	64	20	20	7	39	35	27	NF	NF								
6772	Garry x (Hawk.-Vict.)	58.2	30.5	32	23	21	25	12	4	24	28	F	F								
3502	Tama (ck)	58.0	29.6	30	55	21	22	12	7	29	30	NF 1/2	NF 1/2								
6701	Clintonland	57.9	32.0	31	40	19	22	7	7	29	23	NF	NF								
6700	Clinton4 x Landhafer	57.5	32.1	32	37	19	22	1	37	32	28	NF	NF								
6749	Early Clintafe	55.7	29.8	32	40	22	22	3	42	34	28	NF	NF								
6649	Santa Fe x Bonham	56.5	30.0	35	32	18	25	2	23	35	29	NF	NF								
5766	Clintafe Purification	55.7	29.7	32	40	22	22	6	35	34	26	NF	NF								
5628	LaSalle	55.5	30.1	32	50	18	22	44	38	47	37	F	F								
6748	Clinton4 x Santa Fe	55.2	31.7	30	47	20	21	5	38	35	30	NF	NF								
4372	Shelby (ck)	54.2	30.2	34	60	23	24	35	31	43	28	F	F								
2027	Gopher (ck)	54.1	27.3	33	68	21	22	39	25	39	28	F	F								
6769	Huron x Kent	53.5	30.7	33	59	20	22	43	34	43	29	F	F								
4259	Clinton 59 (ck)	53.0	30.9	31	44	20	22	44	34	52	26	NF	NF								
5611	Park	47.8	26.9	32	52	25	24	14	43	52	32	F	F								
6770	Huron x Kent	47.7	29.3	35	52	23	24	42	43	42	26	F	F								

1/ Number of north central locations averaged.

2/ Fluorescence of lemma and palea of 1953 seed from Aberdeen, Idaho, and Ames and Kanawha, Iowa.

No variation between locations.
3/ Slightly mixed for fluorescence.

NORTHWESTERN REGION

Yields of oats in the northwestern region in 1953 were somewhat above average to the west of the continental divide, whereas they were reduced somewhat from the average in 1952 to the east thereof. As a whole, test weights were somewhat below average; and more lodging was reported than in some previous seasons. No disease was evident on most stations in the West, but some rust was noted on stations in the eastern part of the region. Leaf disease, reported as a possible Helminthosporium, was observed at Moro, Oregon.

The evidence presented by F. A. Coffman that oats of midseason maturity produce the highest yields where maximum temperatures are similar to those of the Northwestern Region was very valuable coming at the time it did. This information made it appear to be unnecessary to continue growing a large number of early oats in the dryland tests and thus have two separate nurseries in the Northwest. As a result, in 1953 the same set of entries was grown on all stations; however, in tabulating the data those reports from stations on irrigated land were summarized in one set of tables, and those from non-irrigated stations were summarized in a second set. The stations in the two sets were grouped as follows:

Irrigated

Creston, Montana
Bozeman, Montana
Laramie, Wyoming
Ft. Collins, Colorado
Hesperus, Colorado
Aberdeen, Idaho
Logan, Utah
Prosser, Washington
Ontario, Oregon
Union, Oregon
Klamath Falls, Oregon

Non-Irrigated

Havre, Montana
Tetonia, Idaho
Moscow, Idaho
Sandpoint, Idaho
Pullman, Washington
Mt. Vernon, Washington
Pendleton, Oregon
Moro, Oregon
Corvallis, Oregon

At Klamath Falls the nursery was seeded on muck soil in addition to the regular test. The crop at Sandpoint made very poor growth, and the nursery was abandoned. In addition, the nursery was grown at two points in Alaska. Discussion of the results obtained in 1953 will be presented separately for each group of stations.

In 1953 a number of new entries were included in the nurseries in the Region for the first time. These were Shasta, Roxton, Exeter, Craig, Clarion, Sauk, Rodney, and Clintland. Checks used were Markton, Carleton, Shelby, and Victory, C.I. 1145. Previously Victory, C.I. 1197, was used on Dryland Stations.

Uniform Northwestern States Oat Experiment on Irrigated Stations

Data on the experiment grown on irrigated stations are presented in Tables 18 to 23, inclusive; with averages for the area appearing in Tables 24 to 27.

The nursery at Hesperus was estimated to have had approximately 15 percent bird damage on all varieties. The tip florets were shattered on C.I. 3865 and Roxton. There was also some shattering of grain from C.I. No's. 4988, 5658, and Clintafe, Clintland, Ajax, Fortune, and Branch. Eighty pounds of nitrogen per acre applied to the soil before seeding at Ontario resulted in very heavy growth and considerable early lodging. The last irrigation was not applied, and this possibly lowered yields of late-maturing varieties and also lowered the weight per bushel.

C.I. 5347 and Roxton matured very unevenly on the muck land at Klamath Falls.

Yield, Bushels per Acre

The yields produced on irrigated stations in 1953 were above average of the past few years. The average yields in 1953 on stations west of the Continental Divide were above those at the same stations in 1952. The yields produced, however, on the stations east of the Continental Divide were higher in 1952 than in 1953.

Yields were reported from the 11 stations, also from the muck area at Klamath Falls. Yields at Union were very irregular, did not appear to be typical of the area, and were omitted from the average.

Oats produced the highest yields at Aberdeen and Prosser in 1953. At both stations the average of all entries was above 160 bushels per acre. The lowest yields were at Hesperus, where the average of all entries was 50.7 bushels per acre. The highest yielding entries in the irrigated tests at all stations were Park, Cody, C.I. 5345, C.I. 5346, and Fortune, which produced average yields ranging from 138.5 to 134.1 bushels per acre, respectively. The poorest yielding oats were Clintland, Clintafe, Clarion, Andrew, and Mo. O-205 (C.I. 4988) which produced yields ranging from 99.0 to 117.8 bushels per acre. Thirteen entries produced more than Carleton, the highest yielding of the check varieties. Shasta and Roxton, the tallest two oats tested, were not consistent in their ability to yield. Shasta was very good, but Roxton was among the poorer yielders. Two Canadian oats, Fortune and Exeter, were among the top ten entries in yield. None of the North Central or Corn Belt varieties was among the top ten. The selections from the Andrew x Clinton cross were the better yielding of those from the Midwest group.

Test Weight

Data on test weights were reported from 10 stations in 1953. Data from the test grown on muck soil at Klamath were not included in the average. The weight per bushel of oats grown on irrigated land were close to the average for the past few years. Clinton x Marion (C.I. 5441) was the heaviest oat, averaging 39.0 pounds per bushel. The four entries producing the heaviest oats were C.I. 5441, Victory, Shelby, and Rodney with bushel weights ranging from 39.0 to 37.8 pounds. Park, C.I. 5345, C.I. 5346, and Overland produced heavier grain than Carleton or Markton but slightly lighter grain than the Victory check. Only a few new oats have been developed the past few years that are high yielding and have heavier bushel weights than the better commercial varieties in the area.

* Certain data appear in Table 28.

Plant Height

Oats grew taller in 1953 than is the average for the irrigated stations of the Northwest. The tallest oats were grown at Logan, where the average for all entries was 56.9 inches; and the shortest oats were grown at Hesperus, where the average height was only 30.7 inches. Prosser was the only other station where the average height was above 50 inches. The four tallest oats were Roxton, Victory, Shasta, and Rodney, which varied from 53.2 to 48.4 inches in height. These oats were from 8 to 12 inches taller than Craig, C.I. 6612, Cody, or Clintland, which were all 40 inches tall or shorter. All Canadian oats in the test were taller than Overland, Cody, Park, or sister selections. Nearly all of the midwest oats except Branch are relatively short, and many have good straw.

Standing Ability

The percent of lodging of entries reported from six stations in 1953 is close to the average for the area. The most severe lodging was reported from Logan. Fourteen entries have stronger straw than the better check varieties, Carleton and Shelby. Bannock and Shasta, with lodging percents of 38.2 and 31.0, respectively, were the weakest strawed oats in the test. Clarion and C.I. 5657 had lower percent of lodging than Overland, one of the stronger strawed oats being grown or tested in the area.

The taller growing Canadian varieties had stronger straw than Victory; but none was equal to Overland or Park.

There appeared to be some association between late maturity and percent of lodging in 1953. Early oats that ripened at time of the last irrigation were not rank enough to lodge.

Date Headed

Heading dates on all entries were recorded at nine stations in 1953. On the average, oats headed earliest at Ontario, June 10, and latest at Creston, July 20. Roxton, Shasta, and Exeter were the latest three oats; all had an average heading date of July 5. Most of the low-yielding midwestern oats were from three days to a week earlier than Park and other high-yielding oats of the area. None of the very early entries in the test produced high yields when compared with the highest yielding entry in this experiment. Fortune, one of the best in the 1953 nursery, was only one day later in heading than Clintafe, one of the lowest producing oats.

Date Ripe

The date harvested was reported from one station; and date ripe, from two others. Damage to some varieties by birds was reported from Ft. Collins. In general, early-maturing varieties suffered the most damage. Data obtained on date ripe from irrigated stations appear in Table 28.

Table 19. Test weight of oats in the Uniform Northwestern States Nursery in 1953.

C.I. no.	Variety, hybrid or selection	Average 10 stations	Creston, Mont.	Bozeman, Mont.	Laramie, Wyo.	Ft. Collins, Colo.	Hesperus, Colo.	Aberdeen, Ida.	Logan, Utah	Prosser, Wash.	Ontario, Oreg.	Klamath, Oreg.	Klamath, (Muck)
2053	Markton (check)	35.9	33	38.7	40.0	39.7	33.5	38.0	34.5	34.6	32.4	35.0	35.5
3916	Cody	35.9	37	39.1	41.8	34.7	32.5	37.5	33.5	37.2	33.9	32.0	34.0
2592	Bannock	36.6	37	40.1	41.0	37.0	34.0	39.5	33.5	35.8	30.0	38.5	35.0
1145	Victory (check)	37.9	37	40.3	40.3	38.8	35.5	39.5	33.0	36.6	34.4	44.0	37.5
2378	Carleton (check)	35.2	34	37.5	39.5	36.4	30.5	35.0	34.5	36.1	33.7	34.5	35.0
4181	Overland	36.6	35	39.5	39.5	35.2	31.5	39.0	36.5	39.4	35.0	35.5	35.5
3865	(V-R) x Bannock	34.4	32	37.1	40.8	34.1	32.0	36.0	30.5	34.0	32.4	35.0	34.5
4372	Shelby (check)	37.8	35	39.6	39.3	40.0	33.5	38.0	35.0	39.5	39.8	38.0	36.5
4170	Andrew	36.2	34	36.7	38.0	39.7	31.5	36.0	36.5	38.0	36.8	35.0	36.0
4157	Ajax	36.8	35	38.5	41.0	35.6	31.0	37.5	34.5	39.9	36.7	38.0	37.0
5226	Fortune	36.3	35	38.7	40.0	35.0	32.0	37.5	34.0	35.9	36.1	38.5	37.0
5013	Branch	37.2	37	40.1	40.6	35.7	33.0	39.5	32.5	39.3	34.1	40.0	36.5
5345	Clinton x Overland ²	36.5	37	38.8	40.5	36.6	32.0	38.5	35.0	36.5	35.3	35.0	35.0
5346	Clinton x Overland ²	36.6	37	39.0	40.3	35.7	33.0	39.0	35.5	35.1	35.8	35.5	36.0
5347	C.I. 4189 x Overland	36.6	35	37.9	39.5	36.2	33.5	39.0	35.5	37.9	34.6	37.0	35.5
5657	Andrew x Clinton	34.8	32	36.8	38.5	36.1	29.5	36.0	34.5	36.3	35.4	33.0	35.0
4988	Mo. O-205	37.1	35	38.9	40.0	39.3	32.0	38.0	35.0	38.0	37.5	37.0	39.0
4658	Andrew x Clinton	36.1	34	37.6	39.5	38.9	31.5	37.0	35.0	37.6	35.4	34.0	36.5
6611	Park	36.4	37	40.4	40.3	35.5	33.5	38.5	36.5	34.2	32.5	36.0	35.0
6612	(B-A) x (Iogold x V-R) ^{1/}	36.3	36	39.3	39.0	34.7	33.5	39.0	35.0	35.3	34.7	36.0	34.0
6613	C.I. 4189 x Overland	35.6	35	37.7	39.5	36.1	31.5	37.0	33.0	35.5	33.2	37.0	37.0
5441	Clinton x Marion	39.0	39	40.0	41.3	42.0	34.5	40.0	36.0	41.2	38.0	38.0	38.0
5869	Clintafe	35.7	34	37.9	38.5	38.1	32.0	36.0	33.5	37.2	34.7	35.0	36.0
3976	Shasta	35.7	35	38.3	38.5	35.1	34.5	37.5	32.5	36.3	32.5	37.0	38.0
4134	Roxton	37.0	35	37.1	37.3	38.1	34.5	38.0	34.5	33.9	33.4	38.0	35.0
4158	Exeter	36.3	35	38.7	41.3	34.4	34.0	36.5	32.5	36.8	34.3	39.0	36.0
5332	Craig	35.7	35	39.9	40.8	34.4	33.0	36.5	35.0	34.2	31.4	37.0	35.0
5647	Clarion	36.5	33	38.3	40.0	40.4	31.5	38.0	36.5	37.1	36.2	34.0	37.0
5946	Sauk	36.6	36	39.0	40.0	37.3	31.5	37.0	36.0	36.6	34.8	37.5	35.0
6661	Rodney	37.8	38	41.0	41.0	37.4	35.0	40.5	35.0	35.4	34.1	40.5	38.0
6701	Clintland	36.1	34	38.7	39.9 ^{2/}	37.4	31.5	36.5	34.0	37.3	36.3	35.0	35.5
Station average		36.4	35.3	38.7	39.9	37.0	32.7	37.8	34.5	36.7	34.7	36.6	36.0

^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland). ^{2/} Data not included in average.

^{3/} Average test weight of all varieties substituted for missing data.

Table 20. Plant height of oats in the Uniform Northwestern States Nursery on Irrigated Stations in 1953.

C.I. no.	Variety, hybrid, or selections	Average 9 stations	Creston, Mont.	Bozeman, Mont.	Ft. Collins Colo.	Hesperus, Colo.	Aberdeen, Ida.	Logan, Utah,	Prosser, Wash.	Ontario, Ore.	Union, Ore.
2053	Markton (check)	45.4	44	44	46	26	48	60	49	44	48
3916	Cody	39.6	42	34	39	18	36	49	62	36	40
2592	Bannock	46.4	45	45	47	27	47	60	56	43	48
1145	Victory (check)	50.0	49	46	51	30	50	66	61	49	48
2378	Carleton (check)	42.7	43	40	42	19	43	56	51	42	48
4181	Overland	40.8	39	35	40	19	38	53	55	40	48
3865	(V-R) x Bannock	41.8	38	40	42	21	41	54	54	38	48
4372	Shelby (check)	45.1	45	42	44	26	46	55	55	45	48
4170	Andrew	42.5	41	41	43	22	42	53	52	41	48
4157	Ajax	47.0	47	44	49	28	47	64	51	45	48
5226	Fortune	46.5	47	44	48	25	49	61	51	46	48
5013	Branch	46.2	47	44	47	26	46	58	56	44	48
5345	Clinton x Overland ²	44.1	43	41	43	23	44	56	55	44	48
5346	Clinton x Overland ²	43.2	43	38	43	24	45	56	49	43	48
5347	C.I. 4189 x Overland	45.1	41	41	45	23	47	56	51	44	58
5657	Andrew x Clinton	41.4	41	39	42	18	41	52	50	42	48
4988	Mo. O-205	43.9	43	41	45	22	43	54	54	43	50
5658	Andrew x Clinton	44.9	46	42	46	25	45	56	52	44	48
6611	Park	43.9	41	38	43	24	43	56	53	41	56
6612	(B-A) x (Iogold x V-R) ^{L/}	39.1	39	36	40	22	38	50	49	38	40
6613	C.I. 4189 x Overland	43.9	43	40	44	25	44	55	55	41	48
5441	Clinton x Marion	44.8	44	40	46	22	46	58	56	44	47
5869	Clintafe	43.6	45	40	44	19	44	56	53	43	48
3976	Shasta	49.0	48	46	49	26	50	66	60	48	48
4134	Roxton	53.2	51	52	54	31	56	70	65	52	48
4158	Exeter	47.8	46	45	48	27	47	60	60	49	48
5332	Craig	39.1	39	34	38	18	36	50	51	38	48
5647	Clarion	42.6	43	39	42	20	43	54	50	44	48
5946	Sauk	44.0	44	42	44	23	45	57	53	40	48
6661	Rodney	48.4	46	45	46	28	49	60	54	47	61
6701	Clintland	40.0	36	37	39	19	41	52	47	41	48
	Station average	44.6	43.5	41.1	44.5	30.7	44.5	56.9	53.9	43.2	48.5

^{L/} (Bond x Anthony) x (Iogold x Victoria-Richland)

L/ (Bond x Anthony) x (Iogold x Victoria-Richland)

Table 21. Percent of Lodging of oats included in the Uniform Northwestern States Nursery when grown on Irrigated and on Non-irrigated stations in 1953.

C.I. no.	Variety, hybrid, or selection	Irrigated						Non-irrigated				Total
		Average stations	Creston, Mont.	Bozeman, Mont.	Hesperus, Colo.	Logan Utah	Prosser, Washing	Ontario, Oreg.	Average stations	Mt. Vernon, Wash.	Pendleton, Oreg.	
2053	Markton (check)	22.3		8	0	48	8	70	21.5	40	3	22.1
3916	Cody	22.2		7	3	57	26	4.0	10.0	20	0	19.1
2592	Bannock	38.2		12	1	91	30	95	25.5	30	21	35.0
1145	Victory (check)	24.2	28	5	0	79	233	10	10.0	20	0	20.6
2378	Carleton (check)	10.3		8	0	14	0	40	12.5	20	5	10.9
4181	Overland	2.2		2	2	1	8	0	15.0	30	0	5.4
3865	(V-R) x Bannock	27.3		12	5	59	33	55	12.5	20	5	23.6
4372	Shelby (check)	10.3	0	3	0	34	0	25	11.5	20	3	10.6
4170	Andrew	5.0		5	2	3	0	20	10.0	20	0	6.2
4157	Ajax	11.0		12	4	45	0	5	17.5	30	5	15.1
5226	Fortune	23.8		20	0	63	0	60	15.0	20	10	21.6
5013	Branch	21.8		12	0	69	0	50	11.5	20	3	19.2
5345	Clinton x Overland ²	11.3		0	0	68	0	0	0.0	0	0	8.5
5346	Clinton x Overland ²	7.8		2	0	30	15	0	0.0	0	0	5.9
5347	C.I. 4189 x Overland	10.0	0	12	0	48	0	0	5.5	10	1	8.9
5657	Andrew x Clinton	1.3	0	5	2	1	0	0	10.0	20	0	3.5
4988	Mo. 0-205	4.5	0	12	0	5	0	10	17.5	30	5	7.7
5658	Andrew x Clinton	4.3	3	4	0	19	0	0	5.5	10	1	4.6
6611	Park	8.1		0	0	49	0	0	0.0	0	0	6.1
6612	(B-A) x (Iogold x V-R) ^{1/}	2.2		0	2	11	0	0	5.0	10	0	2.6
6613	C.I. 4189 x Overland	6.7		2	0	38	0	0	5.5	10	1	6.4
5441	Clinton x Marion	6.8		12	1	8	0	20	20.0	40	0	10.1
5869	Clintafe	5.0		12	0	4	0	15	5.0	10	0	5.1
3976	Shasta	31.0		4	0	95	37	50	15.0	30	0	24.5
4134	Roxton	19.3	0	5	0	84	17	10	21.5	30	13	19.9
4158	Exeter	11.8	3	17	0	31	0	20	10.0	20	0	11.4
5332	Craig	13.0		10	1	10	27	30	20.0	30	10	14.7
5647	Clarion	0.7		4	0	0	0	0	5.0	10	0	1.7
5946	Sauk	8.5		5	0	11	10	25	5.0	10	0	7.6
6661	Rodney	14.5		10	1	51	25	0	10.0	20	0	13.4
6701	Clintland	9.7		17	1	25	0	15	5.0	10	0	8.5
Station average		12.8	1.1	7.7	0.8	37.1	8.3	21.4	10.9	19.0	2.8	12.4
^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland)												

Table 22. Date of heading of oats in the Uniform Northwestern States Nursery on Irrigated Stations in 1953.

C.I. no.	Variety, hybrid, or selection	Average 9 stations	Creston, Montana	Bozeman, Montana	Laramie, Wyo.	Ft. Collins, Colo.	Hesperus, Colo.	Aberdeen, Ida.	Logan, Utah	Prosser, Wash.	Ontario, Ore.	Klamath, Ore.
2053	Markton (check)	6/29	7/18	7/10	7/11	6/21	7/5	6/29	6/23	6/14	6/11	2/ 7/23
3916	Cody	7/1	7/21	7/11	7/10	6/24	7/6	6/30	6/25	6/16	6/12	7/24
2592	Bannock	7/3	7/22	7/12	7/14	6/25	7/10	7/2	6/28	6/15	6/16	7/27
1145	Victory (check)	7/4	7/25	7/14	7/14	6/28	7/11	7/2	6/28	6/17	6/17	7/27
2378	Carleton (check)	6/27	7/20	7/8	7/9	6/20	7/4	6/25	6/21	6/13	6/6	7/22
4181	Overland	6/29	7/18	7/9	7/13	6/21	7/6	6/27	6/23	6/17	6/10	7/22
3865	(V-R) x Bannock	6/29	7/21	7/11	7/11	6/23	7/5	6/28	6/23	6/15	6/7	7/23
4372	Shelby (check)	6/28	7/21	7/9	7/10	6/20	7/5	6/27	6/23	6/14	6/6	7/23
4170	Andrew	6/22	7/14	7/3	7/6	6/14	6/28	6/21	6/16	6/8	5/27	7/15
4157	Ajax	6/29	7/20	7/9	7/10	6/21	7/6	6/27	6/25	6/15	6/8	7/23
5226	Fortune	6/29	7/20	7/10	7/11	6/21	7/7	6/29	6/24	6/10	6/9	7/24
5013	Branch	7/1	7/22	7/12	7/14	6/24	7/10	6/30	6/26	6/14	6/12	7/27
5345	Clinton x Overland ²	7/2	7/21	7/12	7/15	6/23	7/9	7/1	6/25	6/18	6/14	7/24
5346	Clinton x Overland ²	7/2	7/22	7/11	7/14	6/24	7/9	7/1	6/25	6/18	6/14	7/24
5347	C.I. 4189 x Overland	7/1	7/21	7/11	7/13	6/24	7/7	7/2	6/27	6/11	6/13	7/23
5657	Andrew x Clinton	6/25	7/16	7/7	7/7	6/18	7/1	6/25	6/20	6/10	6/4	7/15
4988	Mo. O-205	6/25	7/17	7/8	7/8	6/16	7/1	6/24	6/17	6/10	6/2	7/15
5658	Andrew x Clinton	6/25	7/17	7/8	7/9	6/11	7/3	6/25	6/20	6/11	6/3	7/22
6611	Park	7/3	7/22	7/12	7/14	6/26	7/10	7/1	6/26	6/20	6/15	7/24
6612	(B-A) x (Iogold x V-R) ¹	6/29	7/21	7/10	7/12	6/21	7/6	6/28	6/23	6/16	6/8	7/23
6613	C.I. 4189 x Overland	7/3	7/22	7/13	7/15	6/26	7/9	7/2	6/27	6/18	6/15	
5441	Clinton x Marion	6/27	7/17	7/9	7/9	6/19	7/3	6/26	6/21	6/15	6/6	
5869	Clintafe	6/28	7/16	7/10	7/9	6/19	7/4	6/27	6/22	6/13	6/8	
3976	Shasta	7/5	7/24	7/14	7/17	6/28	7/12	7/4	6/28	6/22	6/19	
4134	Roxton	7/5	7/24	7/15	7/14	6/27	7/12	7/3	6/29	6/23	6/17	
4158	Exeter	7/5	7/25	7/14	7/16	6/28	7/12	7/2	6/28	6/21	6/16	
5332	Craig	6/28	7/22	7/10	7/10	6/19	7/4	6/25	6/22	6/16	6/5	
5647	Clarion	6/25	7/17	7/7	7/7	6/17	7/1	6/24	6/20	6/10	6/2	
5946	Sauk	6/29	7/23	7/11	7/10	6/21	7/5	6/26	6/24	6/17	6/4	
6661	Rodney	7/2	7/22	7/13	7/14	6/25	7/10	7/2	6/26	6/19	6/12	
6701	Clintland	6/25	7/14	7/8	7/9	6/17	6/30	6/24	6/19	6/10	6/1	
	Station average	6/30	7/20	7/10	7/11	6/22	7/6	6/28	6/24	6/15	6/10	7/22

¹/ (Bond x Anthony) x (Iogold x Victoria-Richland). ²/ Data not included in average.

Table 23. Summary data obtained on the
Uniform Irrigated Nursery
grown in the Northwest in 1953

Rank in Yield	C.I. No.	Variety or Selection	Acre Yield (12 Sta) Bu.	Bushel Weight (11 Sta) Lbs.	Plant Height (8 Sta) Ins.	Lodg- ing (6 Sta) Pct.	Date Headed (9 Sta)
1	5345	Clinton x Overland ²	139.2	36.4	43.6	11.3	7/2
2	6611	Clinton x Overland ²	136.5	36.3	42.4	8.1	3
3	5346	Clinton x Overland ²	135.8	36.5	42.6	7.8	2
4	3916	Cody	132.2	35.7	39.5	22.2	1
5	3865	(V-R) x Bannock	129.3	34.4	41.0	27.3	6/29
6	4158	Exeter	128.2	36.3	47.8	11.8	7/5
7	5347	C.I. 4189 x Overland	128.0	36.5	43.5	10.0	1
8	6613	C.I. 4189 x Overland	127.9	35.7	43.4	6.7	3
9	3976	Shasta	127.4	35.9	49.1	31.0	5
10	6661	Rodney	127.2	37.8	46.9	14.5	2
11	6612	(B-A) x (Iogold x V-R)	127.1	36.0	39.0	2.2	6/29
12	5226	Fortune	126.7	36.3	46.4	23.8	29
13	5658	Andrew x Clinton	126.5	36.1	44.5	4.3	25
14	4181	Overland	125.5	36.5	39.9	2.2	29
15	2378	Carleton	124.3	35.2	42.0	10.3	27
16	5013	Branch	124.1	37.1	46.0	21.8	7/1
17	1145	Victory (check)	123.0	37.9	50.3	24.2	4
18	5946	Sauk	122.5	36.4	43.5	8.5	6/29
19	4157	Ajax	122.1	36.8	46.9	11.0	29
20	4372	Shelby	121.4	37.7	44.8	10.3	28
21	4332	Craig	120.5	35.7	38.0	13.0	28
22	5657	Andrew x Clinton	120.0	34.8	40.6	1.3	25
23	4170	Andrew	119.4	36.2	41.9	5.0	22
24	2592	Bannock	116.4	36.5	46.3	38.2	7/3
25	4134	Roxton	116.2	35.9	53.9	19.3	5
26	2953	Markton(check)	114.5	35.9	45.1	22.3	6/29
27	4988	Mo. 0-205:Columbia x V-R	114.4	37.2	43.1	4.5	25
28	5441	Clinton x Marion	113.5	38.9	44.5	6.8	27
29	5647	Clarion	107.6	36.5	41.9	0.7	25
30	5869	Clintafe	104.5	35.7	43.0	5.0	28
31	6701	Clintland	99.5	36.0	39.0	9.7	25

Uniform Northwestern States Oat Experiment on Non-Irrigated Stations

Data on this experiment are presented in Tables 24 to 29.* In the reorganization of the nurseries of the Northwestern Region, data from Dryland and Humid Stations will be summarized in one table as Non-irrigated Stations instead of part being summarized with Dryland and part with Irrigated stations. Also included at the end of each table is the average of each variety for the region. In such an average as this there is a possibility that a variety that is well adapted to the drier areas would be overlooked because of its comparatively low yields in the humid areas. In general, the present arrangement should give a more accurate appraisal of a variety's ability.

The land at Pendleton was fertilized with 30 pounds of nitrogen in the form of Anhydrous ammonia the fall of 1952.

In most of the dryland areas the latter part of the season was not so favorable for good crop production as earlier.

Yield, Bushels per Acre

Yields were reported from eight of the nine stations in 1953. The yields in the area were above those of recent years. Higher yields were produced in 1953 throughout the Palouse section than in 1952, while the reverse was true at the drier stations.

Craig, C.I. 6612, C.I. 3865, Sauk, and Park were the highest yielding entries in the test; and they produced yields ranging from 88.2 to 84.3 bushels per acre. The lowest five were C.I. 4988, Roxton, Clintafe, Clarion, and Clintland, producing about 15 to 22 bushels per acre below Craig. In both the dryland and irrigated tests this latter group of entries, except Roxton, are midwestern and have not been promising in the area. The Canadian variety, Exeter, which was good in the irrigated test, produced higher yields in this experiment than the check varieties Victory, Markton, Carleton, or Shelby. The sister selections of Park (Clinton x Overland² C.I. No's. 5345 and 5346) have produced yields slightly lower than Park; but they supposedly have more H. victoriae resistance, and one should be considered for possible release. The release of Overland, Cody, and Park, all susceptible to H. victoriae in the area, could be dangerous if most of the acreage is seeded with these three.

Test Weight

Data on test weight of oats were received from six stations in 1953. The quality was good, being slightly below the average of recent years.

C.I. 5441, Shelby, Andrew, C.I. 4988, and Clarion produced the heaviest oats on the dryland tests, averaging from 37.9 to 36.6 pounds per bushel, respectively. The three oats - C.I. 5441, Shelby, and Rodney - were in the top five for test weight in both irrigated and dryland tests. Cody, Shasta, C.I. 3865, and C.I. 5657 had relatively poor quality, being in the lower five in both tests. In 1953 again, as in the past, all selections from the Andrew x Clinton cross produced lighter oats than other Clinton crosses.

* Certain data appear in Table 21.

Plant Height

Seven of the nine stations reported data on plant height in 1953. The average plant height of all entries was slightly greater than in former years. The tallest oats were grown at Pendleton, where the average of all entries was 53.4 inches. The oats at Pendleton averaged only 3.5 inches shorter than those on the tallest irrigated station and were taller than on most irrigated stations. The shortest were at Havre where the average of all entries was 26.9 inches in height. The tallest five varieties - Roxton, Victory, Shasta, Ajax, and Rodney - were the tallest entries on all stations. Cody, Craig, and C.I. 6612 were the shortest oats on all stations, there being very little difference in their height. In comparing yield and earliness, there is some relationship between early maturity and low yields. There is, however, no evidence of low-yielding ability being closely linked with plant height.

Standing Ability

Lodging was reported from only two Non-irrigated stations in 1953 (data in Table 21, Irrigated Section). Pendleton reported only a small amount of lodging, whereas a moderate amount was observed at Mt. Vernon. Here, as in the tests on irrigated stations, Bannock lodged most. The outstanding oats appeared to be Park and its two sister selections, C.I. 5345 and C.I. 5346. Data from all stations reporting indicated Clarion lodged least or 1.7 percent compared with 35 percent lodging in Bannock.

Date Headed

Data on date of heading were reported from seven of the nine stations in 1953. Oats were earliest at Moro, where all entries headed during June. The latest were at Tetonia, Idaho, where the average heading date was July 20. Clintland, Mo. O-205, and Andrew were the earliest-maturing oats, being the only oats with average heading dates in June. Victory was the latest entry on these stations. Clintland was the earliest entry on all stations, whereas Roxton, Shasta, and Victory were the last to head.

Date Ripe

Data on date ripe were reported from Tetonia, Idaho. The earliest entry was Craig, whereas the last to ripen were Victory and Roxton.

Forage Yield

Forage yields were reported in tons per acre from Moro. Oats are used for hay in feeding livestock in that area, and forage yields are of considerable importance. Rodney and Victory produced the best forage yields in 1953.

Resistance to Disease

Red leaf, expressed in classes ranging from 0 to 5 (completely susceptible) was reported. Red leaf might have been a manifestation of one of the Helminthosporiums, but it certainly was not a symptom of Helminthosporium victoriae.

Table 24. Yields of oats in the Uniform Northwestern States Nursery on Non-irrigated stations in 1953.

C.I. no.	Variety, hybrid, or selection	Average stations	Rank & stations	Haar, Mont.	Tetonia, Ida.	Moscow, Ida.	Pullman, Wash.	Mt. Vernon, Wash.	Pendleton, Ore.	Moro, Ore.	Corvallis, Ore.	Average all stations
Bushels per acre												
2053	Markton (check)	75.9	26	44.0	28.5	105.8	128.2	68.8	99.8	57.3	74.9	100.2
3916	Cody	83.1	8	28.5	33.7	106.5	136.3	94.5	119.6	64.4	81.4	112.7
2592	Bannock	80.9	14	40.4	27.0	99.3	146.3	82.0	89.0	74.0	89.0	102.9
1145	Victory (check)	81.2	12	34.0	28.2	101.3	135.0	82.3	104.5	73.2	91.3	103.7
2378	Carleton (check)	78.3	23	51.0	30.6	91.8	126.8	77.3	111.5	63.2	74.1	106.4
4181	Overland	80.5	17	44.8	23.9	93.3	130.8	92.3	114.9	59.9	83.8	106.3
3865	(V-R) x Bannock	84.8	3	47.8	28.8	96.8	145.9	95.5	109.5	69.5	84.7	110.0
4372	Shelby (check)	78.6	22	37.4	28.9	89.3	126.1	93.5	102.6	70.2	81.0	104.2
4170	Andrew	79.0	19	39.2	30.7	90.2	132.1	99.8	120.7	55.2	64.2	100.3
4157	Ajax	77.6	25	46.1	24.0	88.0	123.0	103.3	103.0	51.2	85.0	102.5
5226	Fortune	81.0	13	40.3	32.7	100.5	141.9	93.0	103.7	61.8	74.2	110.5
5013	Branch	78.8	21	34.9	24.3	99.5	134.8	98.8	94.8	63.0	80.4	106.0
5345	Clinton x Overland ²	82.4	11	35.7	27.6	100.8	139.9	90.8	111.5	69.5	83.2	111.9
5346	Clinton x Overland ²	80.8	15	33.0	30.1	96.8	133.0	87.3	118.6	67.1	80.8	110.9
5347	C.I. 4189 x Overland	78.9	20	30.4	30.0	98.0	134.5	83.5	105.9	66.5	82.1	108.1
5657	Andrew x Clinton	82.5	10	39.4	30.5	94.8	133.0	95.8	123.6	60.8	81.8	105.5
4988	Mo. O-205	66.9	31	37.5	25.5	90.2	121.8	40.5	109.9	44.8	64.8	95.2
5658	Andrew x Clinton	78.3	23	36.1	30.0	79.3	140.5	91.8	115.1	55.4	77.8	107.4
6611	Park	84.3	5	39.9	29.2	89.3	137.4	97.0	115.7	75.2	90.8	114.4
6612	(B-A) x (Iogold x V-R) ^{1/}	87.5	2	42.7	31.0	103.3	140.8	109.0	121.9	66.7	84.8	111.9
6613	C.I. 4189 x Overland	83.3	7	44.5	28.1	90.8	139.6	91.5	106.3	63.2	102.3	111.0
5441	Clinton x Marion	80.1	18	42.2	31.5	94.3	130.1	96.0	109.2	54.0	83.4	102.6
5869	Clintafe	73.3	29	28.5	23.9	73.0	125.2	97.0	101.1	61.4	76.4	92.8
3976	Shasta	80.6	16	54.3	22.1	104.3	156.9	87.3	84.1	59.6	75.9	109.0
4134	Roxton	69.2	30	40.6	27.6	73.8	139.9	77.0	63.0	53.6	78.0	96.4
4158	Exeter	83.7	6	50.7	28.3	84.5	147.6	91.3	98.8	68.3	100.2	111.0
5332	Craig	88.2	1	43.5	33.5	108.3	144.7	104.5	117.7	70.7	82.4	109.2
5647	Clarion	73.7	28	39.1	32.5	97.8	114.7	79.8	110.9	50.7	63.7	95.3
5946	Sauk	84.8	3	53.0	32.3	105.0	138.2	80.8	116.1	70.6	82.0	108.0
6661	Rodney	82.6	9	39.6	32.3	102.8	132.5	96.3	94.2	69.6	93.7	108.9
6701	Clintland	74.5	27	27.1	21.5	79.3	113.3	104.3	117.5	55.4	77.8	88.1
Station average		80.2		40.2	28.7	94.4	134.5	89.8	106.9	62.8	81.5	105.3

^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland)

Table 25. Test weights of oats in the Uniform Northwestern States Nursery on Non-irrigated stations in 1953.

C.I. no.	Variety, hybrid, or selection	Average 6 stations	Haure, Mont.	Moscow, Ida.	Pullman, Wash.	Pendleton, Oreg.	Moro, Oreg.	Corvallis, Oreg.	Average all stations
Pounds									
2053	Markton (check)	35.2	35.4	35.0	35.3	34.4	33.4	37.7	35.7
3916	Cody	33.9	31.2	33.0	36.7	32.9	34.2	35.4	35.2
2592	Bannock	34.8	36.3	32.5	36.5	32.7	33.0	37.5	35.9
1145	Victory (check)	36.2	38.9	34.0	38.9	35.0	33.4	37.1	37.3
2378	Carleton (check)	35.5	35.8	35.0	36.7	35.7	34.6	35.1	35.3
4181	Overland	35.9	35.4	34.5	38.1	35.1	34.8	37.7	36.4
3865	(V-R) x Bannock	34.3	36.5	32.0	36.5	30.5	34.8	35.5	34.4
4372	Shelby (check)	37.4	35.1	34.5	41.2	37.8	37.7	38.0	37.6
4170	Andrew	37.0	36.5	37.5	37.8	36.7	35.9	37.3	36.5
4157	Ajax	35.8	34.6	33.0	37.6	36.5	35.2	37.9	36.4
5226	Fortune	34.6	33.5	33.5	36.2	35.5	32.8	36.3	35.7
5013	Branch	35.6	34.9	33.0	37.1	34.1	35.7	38.9	36.6
5345	Clinton x Overland ²	36.0	35.7	34.5	37.5	35.5	35.4	37.1	36.3
5346	Clinton x Overland ²	34.4	31.3	32.0	36.9	33.8	35.4	36.7	35.8
5347	C.I. 4189 x Overland	34.8	31.4	34.5	37.5	34.0	35.6	36.0	35.9
5657	Andrew x Clinton	34.4	32.5	33.0	36.4	35.3	34.5	34.4	34.6
4988	Mo. O-205	36.9	35.7	37.0	38.3	37.4	35.6	37.5	37.0
5658	Andrew x Clinton	35.4	33.9	34.0	37.9	34.8	34.9	36.8	35.8
6611	Park	35.2	35.7	31.5	37.9	34.3	34.8	37.2	36.0
6612	(B-A) x (Iogold x V-R) ^{1/}	36.3	36.7	35.0	38.0	35.1	34.7	38.0	36.3
6613	C.I. 4189 x Overland	35.0	35.5	32.5	36.2	34.0	34.7	36.8	35.3
5441	Clinton x Marion	37.9	37.0	37.0	40.8	39.3	36.5	36.9	38.6
5869	Clintafe	35.1	35.5	33.0	37.3	33.8	35.2	36.0	35.5
3976	Shasta	34.3	35.1	33.5	37.8	33.0	29.8	36.7	35.2
4134	Roxton	34.4	37.2	32.5	37.8	30.9	31.5	36.4	36.0
4158	Exeter	35.1	38.0	32.5	36.7	33.8	32.9	36.8	35.9
5332	Craig	35.1	34.8	35.0	35.7	34.3	33.5	37.0	35.5
5647	Clarion	36.6	35.5	36.0	38.2	37.1	37.5	35.5	36.6
5946	Sauk	35.8	37.4	32.5	37.7	34.8	36.6	35.6	36.3
6661	Rodney	36.4	36.6	36.5	37.6	32.9	36.5	38.5	37.3
6701	Clinton	35.9	34.1	34.5	37.6	35.4	36.8	37.2	36.0
	Station average	35.5	35.3	34.0	37.5	34.7	34.8	36.8	36.1
^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland)									

Table 26. Plant height of oats grown in the Uniform Northwestern States Nursery on Non-irrigated stations in 1953.

C.I. no.	Variety, hybrid, or selection	Average 7 stations	Haure, Mont.	Moscow, Ida.	Pullman, Wash.	Mt. Vernon, Wash.	Pendleton, Oreg.	Moro, Oreg.	Corvallis, Oreg.	Average all stations
						inches				
2053	Markton (check)	44.3	30	42	45	53	59	35	46	44.9
3916	Cody	36.1	23	36	37	45	46	30	36	38.1
2592	Bannock	43.7	28	46	45	55	55	34	43	45.2
1145	Victory (check)	46.1	31	48	47	56	60	36	45	48.3
2378	Carleton (check)	39.3	28	34	42	47	53	32	39	41.2
4181	Overland	38.3	26	38	38	47	49	32	38	39.7
3865	(V-R) x Bannock	38.9	25	36	41	50	50	32	38	40.5
4372	Shelby (check)	42.6	27	40	44	52	53	36	46	44.0
4170	Andrew	41.0	26	38	46	49	51	32	45	41.9
4157	Ajax	45.7	29	44	48	56	58	38	47	46.4
5226	Fortune	44.3	28	44	46	55	59	36	42	45.6
5013	Branch	44.4	28	44	45	56	57	37	44	45.4
5345	Clinton x Overland ²	39.9	25	36	42	49	52	35	40	42.2
5346	Clinton x Overland ²	38.9	24	36	41	47	50	35	39	41.3
5347	C.I. 4189 x Overland	40.1	26	36	43	46	53	35	42	42.9
5657	Andrew x Clinton	39.6	26	34	42	48	51	35	41	40.6
4988	Mo. O-205	41.7	27	36	45	52	54	31	47	42.9
5658	Andrew x Clinton	43.3	29	38	45	53	55	37	46	44.2
6611	Park	38.7	27	36	40	46	50	33	39	41.6
6612	(B-A) x (Iogold x V-R) ^{1/}	37.1	23	34	38	47	49	30	39	38.2
6613	C.I. 4189 x Overland	40.6	27	38	41	49	53	34	42	42.4
5441	Clinton x Marion	43.0	26	38	45	55	56	37	44	44.0
5869	Clintafe	40.0	25	36	42	50	52	35	40	42.0
3976	Shasta	45.0	28	46	48	58	58	35	42	47.2
4158	Exeter	43.0	29	42	45	54	54	35	42	45.7
4134	Roxton	49.0	31	52	52	61	60	37	50	51.4
5332	Craig	37.1	22	34	38	48	49	31	38	38.2
5647	Clarion	41.4	28	38	45	48	53	36	42	42.0
5946	Sauk	42.4	28	42	44	50	55	34	44	43.3
6661	Rodney	42.9	29	42	44	55	52	34	44	46.0
6701	Clintland	39.0	25	34	42	48	49	33	42	39.6
Station average		41.5	26.9	39.3	43.4	51.1	53.4	34.3	42.3	42.8
^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland)										

Table 27. Date of heading of oats in the Uniform Northwestern States Nursery on Non-irrigated stations in 1953.

C.I. no.	Variety, hybrid, or selection	Average 7 stations	Have, Mont.	Tetonia, Ida.	Pullman, Wash.	Mt. Vernon, Wash.	Pendleton, Oreg.	Moro, Oreg.	Corvallis, Oreg.	Average all stations
2053	Markton (check)	7/ 4	7/10	7/17	7/ 9	7/13	6/24	6/18	7/ 1	7/ 1
3916	Cody	7/ 8	7/13	7/22	7/12	7/15	6/24	6/20	7/ 2	7/ 4
2592	Bannock	7/11	7/14	7/24	7/ 9	7/15	7/ 1	6/27	7/ 6	7/ 6
1145	Victory (check)	7/13	7/14	7/26	7/11	7/17	7/ 6	6/30	7/ 6	7/ 8
2378	Carleton (check)	7/ 2	7/ 9	7/16	7/ 6	7/11	6/18	6/17	6/27	6/29
4181	Overland	7/ 4	7/ 9	7/20	7/ 7	7/12	6/22	6/18	6/28	7/ 1
3865	(V-R) x Bannock	7/ 4	7/10	7/20	7/ 7	7/13	6/23	6/15	7/ 1	7/ 1
4372	Shelby (check)	7/ 4	7/10	7/20	7/ 7	7/12	6/22	6/19	6/27	7/ 1
4170	Andrew	6/30	7/ 7	7/ 9	7/ 1	7/ 5	6/10	6/11	6/18	6/26
4157	Ajax	7/ 4	7/ 9	7/24	7/ 6	7/12	6/22	6/20	6/27	7/ 2
5226	Fortune	7/ 5	7/11	7/19	7/ 7	7/13	6/23	6/22	6/30	7/ 2
5013	Branch	7/ 7	7/11	7/25	7/ 7	7/13	6/27	6/29	6/30	7/ 4
5345	Clinton x Overland ²	7/ 9	7/12	7/23	7/ 9	7/13	6/24	6/19	7/ 1	7/ 4
5346	Clinton x Overland ²	7/ 7	7/12	7/25	7/ 8	7/13	6/25	6/23	7/ 1	7/ 4
5347	C.I. 4189 x Overland	7/ 7	7/11	7/23	7/ 8	7/13	6/27	6/24	7/ 1	7/ 3
5657	Andrew x Clinton	7/ 1	7/ 8	7/14	7/ 6	7/10	6/15	6/16	6/27	6/28
4988	Mo. O-205	6/28	7/ 7	7/12	7/ 2	7/ 9	6/11	6/12	6/21	6/26
5658	Andrew x Clinton	7/ 1	7/ 8	7/16	7/ 6	7/11	6/15	6/14	6/29	6/28
6611	Park	7/ 6	7/12	7/24	7/ 9	7/13	6/24	6/22	7/ 1	7/ 4
6612	(B-A x (Iogold x V-R)) ^{1/}	7/ 4	7/10	7/22	7/ 7	7/12	6/22	6/19	6/27	6/28
6613	C.I. 4189 x Overland	7/ 8	7/13	7/24	7/11	7/14	6/27	6/24	7/ 3	7/ 5
5441	Clinton x Marion	7/ 3	7/ 9	7/17	7/ 6	7/10	6/22	6/18	6/27	6/30
5869	Clintafe	7/ 4	7/10	7/19	7/ 7	7/11	6/22	6/18	6/30	6/30
3976	Shasta	7/11	7/14	7/27	7/11	7/17	7/ 6	6/30	7/ 6	7/ 8
4134	Roxton	7/11	7/14	7/27	7/11	7/17	7/ 6	6/29	7/ 6	7/ 8
4158	Exeter	7/10	7/14	7/26	7/ 9	7/17	7/ 2	6/28	7/ 5	7/ 7
5332	Craig	7/ 4	7/10	7/21	7/ 9	7/13	6/22	6/17	6/29	7/ 1
5647	Clarion	7/ 1	7/ 7	7/14	7/ 6	7/ 9	6/15	6/16	6/27	6/27
5946	Sauk	7/ 3	7/ 8	7/20	7/ 8	7/13	6/17	6/16	6/29	7/ 1
6661	Rodney	7/ 8	7/13	7/22	7/11	7/15	6/27	6/27	7/ 2	7/ 5
6701	Clintland	6/26	7/ 7	7/13	7/ 2	7/ 9	6/15	6/16	7/ 2	6/25
	Station average	7/ 5	7/12	7/20	7/ 8	7/13	6/23	6/20	6/29	7/ 2

^{1/} (Bond x Anthony) x (Iogold x Victoria-Richland)

Table 28. Miscellaneous data on oats grown in the Uniform Northwestern States Nursery in 1953.

C.I. no.	Variety, hybrid, or selection	Crescent, Mont. Date harvest	Ft. Collins, Colo. Bird damage %	Hesperus, Colo. Date ripe	Tetonia, Ida. Date ripe	Moro, Oreg. Red leaf	Moro, Oreg. Forage yield tons
2053	Markton (check)	9/ 3		8/24	8/14	0.7	2.47
3916	Cody	9/ 3		8/25	8/15	1.7	2.55
2592	Bannock	9/ 3		8/29	8/26	3.0	2.81
1145	Victory (check)	9/ 3		8/30	8/28	3.5	3.06
2378	Carleton (check)	8/28	1	8/22	8/12	3.3	2.38
4181	Overland	8/28		8/25	8/14	3.3	2.76
3865	(V-R) x Bannock	9/ 3		8/24	8/15	1.7	2.51
4372	Shelby (check)	9/ 3	1	8/23	8/22	1.0	2.85
4170	Andrew	8/28	10	8/20	8/13	1.2	2.34
4157	Ajax	8/28	3	8/25	8/24	0.2	2.59
5226	Fortune	9/ 3		8/24	8/15	2.5	2.47
5013	Branch	9/ 3		8/29	8/26	4.7	2.51
5345	Clinton x Overland ²	9/ 3		8/27	8/18	0.5	2.76
5346	Clinton x Overland ²	9/ 3		8/28	8/22	1.5	2.68
5347	C.I. 4189 x Overland	9/ 3	5	8/26	8/16	0.7	2.55
5657	Andrew x Clinton	8/28	5	8/21	8/14	0.2	2.55
4988	Mo. O-205	8/28		8/21	8/15	0.7	2.34
5658	Andrew x Clinton	9/ 3	7	8/21	8/13	0.5	2.68
6611	Park	9/ 3		8/26	8/22	1.2	2.98
6612	(B-A) x (Iogold x V-R) ^{L/}	9/ 3	1	8/24	8/15	4.2	2.47
6613	C.I. 4189 x Overland	9/ 3		8/27	8/23	1.5	2.85
5441	Clinton x Overland	8/28	6	8/23	8/13	0.7	2.47
5869	Clintafe	8/28	5	8/22	8/13	0.7	2.47
3976	Shasta	9/ 3		8/30	8/30	1.5	2.68
4134	Roxton	9/ 3		8/31	8/28	1.7	2.89
4158	Exeter	9/ 3		8/31	8/26	2.7	2.76
5332	Craig	8/28	6	8/23	8/11	3.2	2.55
5647	Clarion	8/28	7	8/21	8/14	1.0	2.47
5946	Sauk	9/ 3	2	8/22	8/13	3.5	2.72
6661	Rodney	9/ 3	1	8/28	8/15	1.7	3.06
6701	Clintland	8/28	12	8/19	8/14	0.7	2.25

L/ (Bond x Anthony) x (Iogold x Victoria-Richland)

Table 29. Summary data obtained on the
Uniform Non-irrigated Nursery
grown in the Northwest in 1953

Rank in Yield	C.I. No.	Variety or Selection	Acre Yield (8 Sta) Bu.	Bushel Weight (6 Sta) Lbs.	Plant Height (7 Sta) Ins.	Lodg- ing (2 Sta) %	Date Headed (7 Sta)
1	4332	Craig	88.2	35.1	37.1	20.0	7/4
2	6612	(B-A) x (Iogold x (V-R))	87.5	36.3	37.1	5.0	4
3	3865	(V-R) x Bannock	84.8	34.3	38.9	12.5	4
4	5946	Sauk	84.8	35.8	42.4	5.0	3
5	6611	Clinton x Overland ²	84.3	35.2	38.7	0	6
6	4158	Exeter	83.7	35.1	43.0	10.0	10
7	6613	C.I. 4189 x Overland	83.3	35.0	40.6	5.5	8
8	3916	Cody	83.1	33.9	36.1	10.0	8
9	6661	Rodney	82.6	36.4	42.9	10.0	8
10	5657	Andrew x Clinton	82.5	34.4	39.6	10.0	1
11	5345	Clinton x Overland ²	82.4	36.0	39.9	0	6
12	1145	Victory (check)	81.2	36.2	46.1	10.0	13
13	5226	Fortune	81.0	34.6	44.3	15.0	5
14	2592	Bannock	80.9	34.8	43.7	25.5	11
15	5346	Clinton x Overland ²	80.8	34.4	38.9	0	7
16	3976	Shasta	80.6	34.3	45.0	15.0	11
17	4181	Overland	80.5	35.9	38.3	15.0	4
18	5441	Clinton x Marion	80.1	37.9	43.0	20.0	3
19	4170	Andrew	79.0	37.0	41.0	10.0	6/30
20	5347	C.I. 4189 x Overland	78.9	34.8	40.1	5.5	7/7
21	5013	Branch	78.8	35.6	44.4	11.5	7
22	4372	Shelby	78.6	37.4	42.6	11.5	4
23	2378	Carleton	78.3	35.5	39.3	12.5	2
24	5658	Andrew x Clinton	78.3	35.4	43.3	5.5	1
25	4157	Ajax	77.6	35.8	45.7	17.5	4
26	2053	Markton	75.9	35.2	44.3	21.5	4
27	6701	Clintland	74.5	35.9	39.0	5.0	6/26
28	5647	Clarion	73.7	36.6	41.4	5.0	7/1
29	5869	Clintafe	73.3	35.1	40.0	5.0	4
30	4134	Roxton	69.2	34.4	49.0	21.5	11
31	4988	Columbia x (V-R): Mo-O-205	66.9	36.9	41.7	17.5	6/28

SOUTH CENTRAL AND SOUTH WESTERN REGION

In 1953 weather conditions in the region were more favorable in most of the region than in 1952 whereas they were less favorable for oat production in the South and the Southwest. On the whole average yields were below those harvested in 1952. This was especially true in the Southwest. Dry weather was experienced in the area from Missouri westward as well as on some stations in the Southern States. Higher yields in the North Central area raised the over all averages.

Disease was not much of a problem in oat production in most of the southern part of the area because dry weather held the rusts in check. At several points farther north, however, rusts both crown and stem caused considerable damage in all except the earliest maturing entries.

Oats that are susceptible to H. victoriae are no longer grown extensively in the area and as a result damage from that disease was light. Stem rust race 7 and crown rust race 45 and similar races reduced yields on many stations in the North Central states which cooperate in growing these experiments.

In addition to reports on the uniform tests a report was received from Hays, Kans., on a varietal experiment with oats grown at that point. These data are not included in this report.

Uniform Spring Sown Red Oat Experiment

As in previous seasons only one spring-sown yield experiment, the Uniform Spring Sown Red Oat Experiment was grown throughout this region which includes the so called "Border States" and adjacent areas both to the North and South. The data on yields have been divided and averaged separately for different areas whereas other data are included in single averages. Data obtained from this experiment in 1953 are included in Tables 30 to 38, inclusive.*

Stations growing this nursery in 1953 included the following:

Md.	Beltsville	Iowa	Ames
Va.	Blacksburg	Mo.	Columbia
N. C.	Statesville	Ark.	Fayetteville
Ga.	Experiment	Nebr.	Lincoln
	Blairsville	Kans.	Manhattan
Ohio	Columbus		Hays
Ky.	Lexington	Okla.	Stillwater
Ind.	Lafayette	Tex.	Denton
Ill.	Urbana	Colo.	Akron

*Attention is called to the fact that in this section of this report in some tables averages appear in the last column rather than in the first, as in all other sections.

In addition an observation nursery was grown at Aberdeen, Ida., and disease nurseries were grown at Beltsville, Md., (summer rust nursery) Ames, Iowa, and Manhattan, Kans.

In 1953 the experiment included 31 entries. The checks included were Kanota, Clinton, Osage and Columbia. An unusually large number of entries grown in 1953 were derivatives of the Andrew x Landhafer cross. A second large group of entries included Columbia in their parentage.

Yield, Bushels Per Acre

In previous reports yield data from this experiment from the different stations have been divided. Those from the Corn Belt and Eastern stations have been assembled in one average and those from the Southwest in a second table. In 1953 the yield data have been averaged in three groups as follows: (1) Southern Stations, (2) North Central Stations and (3) Southwestern Stations. As Kansas, is usually classed as a southwestern station yield data from the two Kansas stations appear in both of the last two averages. Other than yields the data from different stations have not been divided in presenting them herein.

Yield data were received from 6 eastern and southern stations, Beltsville, Maryland, being considered in that group in this report. Data from these 6 stations indicate that yields were low in 1953. The highest producing entry was Mo. O-205, C. I. 4988 followed by C.I. 6625 and Cherokee Reselection which averaged 39.1, 38.7 and 38.2 bushels per acre, respectively. Andrew x Landhafer C. I. 6636 and Clinton yielded poorest averaging only 29.2 and 29.4 bushels per acre, respectively. Yields on the 8 North Central stations were much better than those for the Southern or Southwestern stations. There Mo. O-205 C. I. 5323 averaged 62.6 bushels per acre followed by 62.5 for C. I. 6633, 60.9 for C.I. 6636, 60.8 for C. I. 6619, 60.6 for C. I. 6632 and 60.2 bushels for Mo. O-200. C. I. 6629 averaging only 39.6 yielded poorest, followed by Clinton with an average of 47.5 and Cherokee Reselection with an average of 50.0 bushels.

On the five Southwestern stations, which included also Manhattan and Hays, Kansas yields were poor. Only five entries, Osage and C. I. Nos. 6636, 6633, 6632 and 6630 yielded 40 bushels per acre or more. C. I. 6633 averaged 41.2 bushels. The poorest yielding entry on these stations was C. I. 6629 which averaged only 30.4 bushels per acre.

Test Weight

Data on test weight were received from 11 stations in 1953. Many entries gave low tests and only four, C. I. Nos. 6622, 4986, 6625 and 6761 averaged 32 pounds or more per bushel. The poorest average test weight was recorded for C. I. 6629 which averaged only 25.5 pounds per bushel. Most of the other entries tested in the range from 28.5 to 31.5 pounds per bushel.

Plant Height

Data on plant height were received from 10 stations and because of droughty conditions on some stations oats averaged short in this test in 1953. Only two entries C. I. Nos. 6762 and 6624 averaged 30 inches tall or taller. The shortest entry was the check variety Osage which averaged only 24.8 inches tall. Even Columbia averaged only 29.4 inches in height and Clinton only 28.1 inches tall in 1953.

Standing Ability

Although oats were exceptionally short in 1953 lodging was severe at many points and on the average data from nine stations reporting indicated that Mo. O-200 lodged 61.1 percent and C. I. No. 6763, 50.1 percent in 1953. The stiffest strawed entries were Clinton and Nemaha; each lodged only 22.9 percent. Lodging in C. I. No. 6762 was 25.9 percent and Cherokee Reselection, 27.7 percent. Kanota, Osage and Columbia each lodged close to or slightly above 40 percent.

Date Headed

Data on date of heading were received from 10 stations in 1953. Oats headed earliest at Denton, Texas and Stillwater, Oklahoma, and latest at Ames, Iowa. The earliest heading entries in 1953 had average heading dates of June 2. Among these were Kanota, Andrew, Columbia and some of the Andrew x Landhafer strains and others. The latest heading entries in the nursery were Clinton check and C. I. 6629; both headed on June 7.

Date Ripe

Data on date ripe were received from 4 points in 1953. Except for Kanota which had an average ripening date of June 30 all entries ripened in July.

Resistance to Disease

Data on reaction of entries in the Uniform Spring Sown Red Oat Nursery to disease were received from 6 stations. Reports on infection by crown rust were received from 2 stations, stem rust from 6 stations and smut from one. As to crown rust, some of the Andrew x Landhafer strains were highly resistant whereas others were susceptible. All entries were susceptible either to stem rust race 8 or to stem rust race 7, although many were resistant to one or the other race. None were resistant to both.

Table 30. Yields on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Experiment grown in 1953

C. I. No.	Variety or Selection	Beltsville and Southern Stations										North Central Stations						
		Average all 15 Stations	Average S East & South	Average S North Central	Beltsville, Md.	Blacksburg, Va.	Blairsville, Ga.	Experiment, Ga.	Lexington, Ky.	Jayetteville, Ark. 1/	Columbus, Ohio	Lafayette, Ind.	Urbana, Ill.	Columbia, Mo.	Ames, Iowa	Lincoln, Nebr.	Manhattan, Kans.	Hays, Kans.
		Bu.	Bu.	Bu.						Bushels								
6619	Andrew x Landhafer	47.7	30.0	60.8	27.0	30.2	26.4	27.2	39.4	50.1	92.0	90.6	57.7	42.7	84.4	29.6	58.6	31.1
6620	"	45.6	31.7	56.3	26.8	28.1	26.4	31.5	45.8	43.5	80.9	86.4	56.2	48.3	70.0	23.3	53.2	31.8
6621	"	46.2	33.1	55.0	28.2	28.2	30.2	33.7	45.0	40.8	86.6	76.0	62.0	41.3	76.8	21.5	52.0	24.1
6622	"	42.9	32.5	50.7	24.4	28.9	22.3	26.2	36.1	45.9	59.7	71.7	54.3	46.5	74.2	22.5	51.2	25.8
4170	Andrew (Check)	48.6	37.8	59.1	38.0	27.9	36.7	36.6	49.8	46.8	96.6	70.0	59.3	49.3	76.4	36.2	54.6	30.6
6623	Andrew x Landhafer	47.0	33.0	58.7	32.0	29.9	34.1	26.2	42.8	53.7	84.3	83.1	54.0	49.5	83.0	27.7	59.8	27.8
6630	"	47.1	31.3	58.8	23.8	30.7	36.0	24.0	42.2	37.8	79.6	83.8	61.2	44.2	81.0	33.1	55.4	32.2
6632	"	49.6	34.5	60.6	30.0	35.9	35.1	32.8	38.7	43.5	94.4	78.7	61.2	47.8	87.0	30.9	52.4	32.7
6633	"	49.0	30.6	62.5	29.6	32.0	27.0	24.7	39.9	38.1	95.5	89.6	60.1	47.3	82.5	32.1	60.8	32.2
6634	"	46.8	32.6	60.1	30.4	35.1	30.4	25.3	41.9	31.2	95.5	85.4	59.2	35.4	79.8	32.8	60.6	32.3
6636	"	47.1	29.2	60.9	28.4	26.4	24.9	27.7	38.4	54.0	83.9	93.3	61.0	37.9	82.7	35.6	62.2	30.6
6638	"	44.1	33.9	52.6	23.2	34.3	34.3	34.5	43.0	57.9	88.7	77.4	56.2	43.2	64.5	19.5	45.4	26.0
6639	"	46.5	37.4	55.1	23.2	39.3	44.6	33.4	46.3	38.7	85.1	82.7	53.4	46.5	77.0	22.3	51.4	22.5
3971	Clinton (Check)	39.4	29.4	47.5	23.4	24.6	34.7	31.5	32.7	40.2	80.2	73.2	45.8	35.2	55.2	25.5	47.4	17.2
839	Kanota (Check)	41.1	31.5	51.2	27.2	28.2	33.6	23.2	45.1	44.1	70.5	79.0	41.8	56.7	48.9	32.5	51.6	28.4
3991	Osage (Check)	43.2	32.0	52.4	33.4	28.8	23.4	31.5	43.0	41.4	71.1	43.9	42.8	52.4	77.6	44.4	58.8	28.1
4301	Nemaha	43.3	35.2	50.9	38.8	26.1	42.9	29.1	38.9	38.8	67.9	73.1	41.8	40.8	73.4	35.2	49.0	26.0
5444	Cherokee Resel.	44.0	38.2	50.0	39.6	25.6	40.1	40.9	44.8	43.8	71.1	64.0	40.6	47.0	66.8	38.1	51.2	21.5
4988	Mo. O-205: Columbia x (Vict.-Rich.)	49.2	39.1	58.8	32.0	38.1	40.7	40.3	44.3	40.8	68.0	87.9	47.7	50.5	81.4	43.5	61.2	29.8
5323	"	49.4	37.4	62.6	31.6	35.3	35.8	41.2	43.1	57.3	93.6	88.2	57.7	49.2	80.7	37.7	61.6	31.8
4626	Mo. O-200: Columbia x Bond-Iogold	47.9	37.1	60.2	40.0	38.0	35.1	26.2	46.2	-	93.6	83.2	54.6	49.3	78.0	38.8	53.2	30.5
4986	Columbia x Marion	46.2	33.8	57.4	35.4	27.8	33.6	31.1	40.9	50.1	80.8	79.4	47.0	54.3	80.2	36.8	53.6	2/
6625	"	47.9	38.7	57.8	40.6	32.2	46.1	30.7	43.8	32.7	96.5	76.9	53.3	47.6	73.6	36.6	51.2	26.5
6624	(Columbia x Vict.-Rich.) x Clinton	46.2	35.3	56.3	39.6	27.9	26.6	30.9	51.7	33.9	79.4	93.7	46.2	46.3	78.0	35.8	50.8	20.0
6761	"	44.0	30.8	55.0	29.0	23.4	31.7	30.4	39.3	32.1	88.8	76.2	52.6	48.8	61.4	35.0	51.4	26.0
2820	Columbia (Check)	47.1	37.7	58.4	37.0	27.9	38.8	36.6	48.1	54.6	94.8	90.4	42.8	53.1	65.1	30.9	60.2	29.7
6762	(Columbia x V-R) x Clinton: Mo. O4275	42.9	33.7	51.0	30.0	34.1	32.1	27.0	45.5	32.0	73.5	76.8	47.1	39.5	67.6	31.8	49.2	22.6
6763	"	44.1	32.3	55.1	26.6	24.5	31.7	31.9	46.7	48.0	86.8	82.3	49.7	49.2	53.2	37.0	55.0	27.7
4672	(Bond x Anthony) x (Richland-Fulghum)	47.4	36.7	57.6	37.4	26.4	26.4	45.4	47.9	-	86.6	93.3	54.0	48.0	74.5	19.1	55.6	30.0
6629	Atlantic x (Clinton x Santa Fe)	34.7	32.8	39.6	41.2	20.5	29.8	32.6	40.1	33.9	77.7	15.9	20.7	43.2	42.2	37.4	50.8	18.5
6631	Andrew x Landhafer	49.7	38.5	59.0	39.6	27.4	30.4	52.7	42.2	48.3	88.8	92.1	52.6	43.0	76.3	34.6	56.0	28.8

1/ Data omitted from average for southern stations because of unfavorable weather conditions. Yields were not considered reliable.
 2/ Data for station, 27.4 substituted for missing data.

Table 31. Yields on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Nursery grown in 1953

C. I. No.	Variety or Selection	Stations in the Southwest				
		Average 5 Stations	Stillwater, Okla.	Denton, Tex.	Lincoln, Nebr.	Manhattan, Kans.
						Hays, Kans.
6619	Andrew x Landhafer	39.6	13.6	65.2	29.6	58.6
6620	"	36.7	21.8	53.6	23.3	31.1
6621	"	37.1	15.4	72.4	21.5	53.2
6622	"	34.9	15.7	59.2	22.5	52.0
4170	Andrew (Check)	37.7	8.7	58.4	36.2	51.2
6623	Andrew x Landhafer	37.1	10.9	59.2	27.7	54.6
6630	"	40.0	14.3	64.8	33.1	59.8
6632	"	40.5	17.7	68.8	30.9	55.4
6633	"	41.2	16.7	64.4	32.1	52.4
6634	"	36.7	13.3	44.4	32.8	60.8
6636	"	40.5	14.9	59.2	35.6	60.6
6638	"	32.6	13.4	58.8	19.5	62.2
6639	"	33.1	16.6	52.8	22.3	45.4
3971	Clinton (Check)	30.8	10.2	53.6	25.5	51.4
839	Kanota (Check)	32.5	18.2	32.0	32.5	47.4
3991	Osage (Check)	40.0	17.5	51.2	44.4	51.6
4301	Nemaha	35.2	14.7	51.2	35.2	58.8
5444	Cherokee Resel.	35.9	15.6	53.2	38.1	49.0
4988	Mo. O-205: Columbia x (Victoria-Richland)	41.4	9.2	63.2	43.5	51.2
5323	"	36.9	13.2	40.0	37.7	61.2
4626	Mo. O-200: Columbia x Bond-Iogold	34.8	12.8	38.8	38.8	61.6
4986	Columbia x Marion	36.4	14.9	49.2	36.8	53.2
6625	"	35.6	14.8	48.8	36.6	53.6
6624	(Columbia x Victoria-Richland) x Clinton	34.4	14.8	50.8	35.8	51.2
6761	"	35.7	12.5	1/	35.0	50.8
2820	Columbia (Check)	34.3	11.6	39.2	30.9	51.4
6762	(Columbia x Victoria-Richland) x Clinton: Mo. O-4275	33.9	10.0	56.0	31.8	60.2
6763	"	35.7	10.2	48.8	37.0	49.2
4672	(Bond x Anthony) x (Richland-Fulghum)	34.1	15.3	50.4	19.1	55.0
6629	Atlantic x Clinton ² x Santa Fe	30.4	11.1	34.4	37.4	27.7
6631	Andrew x Landhafer	40.0	16.5	64.0	34.6	55.6
						50.8
						18.5
						30.0
						28.8

1/ Ave. for station substituted for missing data.

Table 32. Test weight on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat

Nursery grown in 1953

C. I. No.	Variety or Selection	Blacksburg, Va.	Columbus, Ohio	Lexington, Ky.	Lafayette, Ind.	Urbana, Ill.	Columbia, Mo.	Ames, Iowa	Lincoln, Nebr.	Manhattan, Kans.	Hays, Kans.	Stillwater, Okla.	Average 11 Stations
							Pounds						
6619	Andrew x Landhafer	28.6	26.3	31.9	32.8	28.0	29.5	28.3	31.5	31.6	29.5	20.0	28.9
6620	"	29.9	29.9	32.5	35.2	30.0	30.0	28.3	28.0	31.3	30.0	24.0	29.9
6621	"	28.5	30.6	32.9	37.0	29.0	30.0	28.4	28.0	31.4	26.5	21.1	29.4
6622	"	29.9	29.1	32.8	36.1	29.0	31.0	29.7	29.0	31.9	25.5	22.1	32.3
4170	Andrew (Check)	31.7	31.2	32.5	33.2	30.0	34.0	30.9	30.5	34.4	29.0	20.8	30.7
6623	Andrew x Landhafer	30.2	30.8	32.5	35.0	29.0	30.5	30.2	29.0	32.4	30.0	21.0	30.1
6630	"	28.4	25.9	31.0	33.7	28.0	27.5	28.7	30.5	29.9	31.0	20.9	28.7
6632	"	28.8	28.1	32.0	36.6	29.0	30.0	30.0	30.0	29.8	31.0	21.8	29.7
6633	"	28.5	27.7	32.3	32.3	28.0	31.0	29.9	30.0	29.9	31.5	22.4	29.4
6634	"	28.1	27.5	31.2	33.1	27.0	28.5	28.5	27.5	29.4	28.0	20.0	28.1
6636	"	28.6	27.3	29.2	32.2	28.0	29.5	27.5	28.5	29.3	27.5	19.4	27.9
6638	"	30.7	30.2	31.9	34.0	29.0	32.0	28.4	31.0	30.5	29.0	21.5	29.8
6639	"	30.9	29.1	31.8	34.9	30.0	31.5	31.7	31.0	29.5	25.5	25.5	30.1
3971	Clinton (Check)	29.9	27.8	30.8	35.4	30.0	30.0	27.4	34.0	31.5	28.0	21.8	29.7
839	Kanota (Check)	29.6	28.0	31.9	34.5	28.0	32.5	25.1	27.5	32.8	29.5	22.9	29.3
3991	Osage (Check)	28.2	28.4	33.0	29.2	30.0	34.0	28.3	30.5	32.5	29.5	24.9	29.9
4301	Nemaha	29.5	29.7	31.6	34.4	30.0	33.0	31.0	32.5	34.8	31.5	23.1	31.0
5444	Cherokee Resel.	29.6	30.1	32.6	33.3	29.0	34.5	29.9	32.5	35.4	29.0	22.8	30.8
4988	Mo. O-205: Columbia x (V-R)	32.5	31.1	34.2	34.8	31.0	31.0	32.1	31.0	33.6	31.5	22.6	31.4
5323	"	30.5	30.2	34.3	35.0	31.0	33.0	31.7	31.0	34.1	31.5	21.8	31.3
4626	Mo. O-200: Columbia x Bond-Logold	31.7	29.7	34.5	36.4	32.0	34.5	29.5	32.5	35.8	30.0	24.1	31.9
4986	Columbia x Marion	30.4	33.0	34.6	34.7	31.0	34.0	31.2	33.0	35.3	31.5	24.9	32.1
6625	"	32.2	32.7	34.7	33.8	32.0	35.0	31.9	33.0	34.8	32.0	24.3	32.4
6624	(Columbia x V-R) x Clinton	32.3	31.5	33.7	36.7	30.0	32.0	31.4	32.5	35.3	29.0	24.2	31.7
6761	" x " : Mo. 04269	30.4	31.4	35.3	34.4	31.0	34.5	31.5	34.0	35.1	33.0	25.0	32.3
2820	Columbia (Check)	29.8	31.9	32.3	34.5	29.0	33.0	27.9	27.5	34.1	29.0	22.1	30.1
6762	(Columbia x V-R) x Clinton: Mo. 04275	32.5	30.4	34.6	34.4	31.0	31.5	32.9	32.5	34.1	31.5	23.1	31.7
6763	" " : Mo. 04279	30.3	28.3	33.1	32.3	30.0	31.5	25.2	32.0	33.8	30.5	21.9	29.9
4672	(Bond x Anthony) x (Richland-Fulghum)	28.5	31.1	33.9	32.6	29.0	32.5	30.0	31.0	34.6	31.0	24.3	30.8
6629	Atlantic x (Clinton ² x Santa Fe)	28.2	26.7	30.4	20.5	21.0	29.0	22.8	31.0	27.2	24.5	19.2	25.5
6631	Andrew x Landhafer	30.9	28.3	32.3	33.8	28.0	30.5	29.0	33.0	31.6	31.0	22.0	30.0

Table 33. Plant height on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Nursery

grown in 1953

C. I. No.	Variety or Selection	Beltsville, Md.	Blacksburg, Va.	Lexington, Ky.	Urbana, Ill.	Columbia, Mo.	Ames, Iowa	Lincoln, Neb.	Manhattan, Kans.	Hays, Kans.	Stillwater, Okla.	Average 10 Stations
							Inches					
6619	Andrew x Landhafer	29.5	22	28	25	30	33	27	27	20	21	26.3
6620	" "	31.0	25	31	29	33	33	27	29	20	25	28.3
6621	" "	31.0	27	30	29	33	34	27	29	21	24	28.5
6622	" "	32.5	25	29	27	33	35	28	29	20	24	28.3
4170	Andrew (Check)	33.0	24	33	29	34	35	30	29	23	23	29.3
6623	Andrew x Landhafer	32.5	26	30	28	33	34	29	29	20	21	28.3
6630	" "	31.5	26	27	27	33	32	25	29	20	24	27.5
6632	" "	31.5	23	26	26	30	30	25	27	19	22	26.0
6633	" "	30.0	23	27	27	30	31	25	27	19	21	26.0
6634	" "	33.5	25	27	26	29	32	25	26	19	22	26.5
6636	" "	33.5	24	27	27	31	33	26	27	20	22	27.1
6638	" "	35.0	25	29	28	35	35	27	29	21	23	28.7
6639	" "	33.0	25	28	27	31	33	27	28	20	23	27.5
3971	Clinton (Check)	34.0	25	28	29	33	31	27	29	22	23	28.1
839	Kanota (Check)	35.0	24	31	26	33	32	28	28	19	21	27.7
3991	Osage (Check)	30.0	23	25	25	28	29	24	25	19	20	24.8
4301	Nemaha	33.0	24	27	28	32	33	29	28	22	24	28.0
5444	Cherokee Resel.	33.0	23	29	27	33	33	28	29	21	24	28.0
4988	Mo. O-205:Columbia x (V-R)	35.5	27	30	29	36	32	29	30	22	23	29.4
5323	" "	34.5	27	29	30	37	34	29	30	22	24	29.7
4626	Mo. O-200: Columbia x Bond-Iogeld	34.0	26	32	29	34	36	30	29	21	24	29.5
4986	Columbia x Marion	35.5	24	29	29	37	35	28	31	22	25	29.6
6625	" "	37.0	25	30	29	36	34	27	31	22	25	29.6
6624	(Columbia x V-R) x Clinton	37.0	24	35	28	36	35	30	31	22	25	30.3
6761	" " : Mo.04269	35.0	24	29	29	36	32	28	30	22	24	28.9
2820	Columbia (Check)	35.5	24	33	28	35	34	30	29	21	24	29.4
6762	(Columbia x V-R) x Clinton: Mo.04275	38.0	24	34	30	35	34	27	31	23	25	30.1
6763	" " : Mo.04279	36.5	24	30	30	35	32	27	30	22	23	29.0
4672	(Bond x Anthony) x (Richland-Fulghum)	35.5	23	28	27	34	33	29	28	21	23	28.2
6629	Atlantic x (Clinton ₂ x Santa Fe)	36.0	23	26	27	35	31	27	30	21	21	27.7
6631	Andrew x Landhafer	34.5	23	28	27	32	32	26	27	20	22	27.2

Table 34. Percent of lodging on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat

Nursery grown in 1953

C. I. No.	Variety or Selection	Average Stations	Beltsville,	Jacksburg,	Idafayette,	U. S. Bana,	Idaho,	Mc Cumbria,	Am s,	Le coln,	Mar attan,	Kar ,	Hay Kan
					Percent								
6620	" " Landhafer	36.8	100.0	5	73	30	11	90	19	2	1.5		
6621	" "	30.0	35.0	4	60	57	14	85	10	3	2.0		
6622	" "	31.6	40.0	5	67	58	11	85	12	4	2.0		
4170	Andrew (check)	30.7	45.0	4	53	47	18	90	13	4	2.0		
6623	Andrew x Landhafer	28.4	52.5	5	60	37	9	75	13	3	1.0		
6630	" "	32.6	57.5	4	67	43	12	80	18	10	1.5		
6632	" "	41.2	72.5	7	60	82	13	80	23	31	2.0		
6633	" "	38.2	87.5	10	73	68	16	80	5	2	2.0		
6634	" "	39.1	87.5	9	73	72	16	85	3	3	3.0		
6636	" "	43.7	87.5	12	73	91	18	90	5	14	3.0		
6638	" "	36.8	62.5	9	60	72	19	75	30	2	2.0		
6639	" "	33.7	62.5	4	53	67	14	85	4	12	1.5		
3971	Clinton (Check)	28.1	60.0	6	47	45	10	80	3	1	2.0		
839	Kanota (Check)	23.1	20.0	10	47	72	8	45	3	2	1.0		
3991	Osage (Check)	41.2	72.5	9	67	93	16	95	10	6	2.0		
4301	Nemaha	42.4	65.0	12	80	95	12	80	22	14	2.0		
5444	Cherokee Resel.	22.9	20.0	9	40	47	7	65	17	1	1.0		
4988	Mo. O-205: Columbia x (V-R)	27.9	20.0	7	47	44	8	80	42	2	1.0		
5323	" "	38.1	75.0	3	47	78	11	60	60	7	2.0		
4626	Mo. O-200	44.3	100.0	3	53	77	11	65	82	7	1.0		
4986	Columbia x Marion	55.3	100.0	15	67	97	13	90	88	23	5.0		
6625	" "	41.2	95.0	4	73	72	11	65	43	6	2.0		
6624	(Columbia x V-R) x Clinton	37.9	85.5	4	60	72	12	60	40	6	1.5		
6761	" "	42.6	75.0	3	60	72	12	65	42	8	2.0		
2820	Columbia (Check)	38.8	75.0	3	80	90	11	80	37	5	2.0		
6762	(Columbia x V-R) x Clinton: Mo. O-4275	26.2	75.0	3	67	58	10	90	28	9	2.0		
6763	" "	50.4	75.0	5	67	33	12	30	12	3	1.0		
4672	(Bond x Anthony) x (Richland-Fulghum)	34.7	75.0	2	80	97	15	95	72	13	2.0		
6629	Atlantic x (Clinton ² x Santa Fe)	42.2	75.0	6	73	85	16	50	7	3	1.0		
6631	Andrew x Landhafer	39.2	75.0	3	60	90	10	80	10	30	2.0		

Table 35. Date of heading on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Nursery

grown in 1953

C. I. No.	Variety or Selection	Beltsville, Md.	Lexington, Ky.	Lafayette, Ind.	Urbana, Ill.	Columbia, Mo.	Ames, Iowa	Lincoln, Nebr.	Hayes, Kans.	Stillwater, Okla.	Denton, Tex.	Columbus, Ohio	Average 11 Stations
6619	Andrew x Landhafer	6-10	6-5	6-8	6-6	6-3	6-15	6-9	5-30	5-21	5-10	6-3	6-3
6620	"	12	4	10	8	3	16	8	29	18	9	5	3
6621	"	11	4	10	8	3	16	8	31	19	9	5	3
6622	"	10	5	9	8	3	16	8	31	19	9	5	3
4170	Andrew (Check)	10	2	8	6	2	13	8	31	21	12	3	3
6623	Andrew x Landhafer	10	4	8	7	3	16	8	30	20	9	5	3
6630	"	12	5	12	9	4	18	10	30	21	12	8	5
6632	"	10	5	8	7	4	15	8	29	20	9	5	2
6633	"	10	4	8	7	3	14	8	30	20	10	5	3
6634	"	10	5	8	7	3	16	8	30	21	11	5	3
6636	"	10	5	9	8	3	16	8	30	20	12	5	3
6638	"	10	4	9	8	3	16	8	30	20	10	5	3
6639	"	10	4	9	8	3	16	8	30	19	10	5	3
3971	Clinton (Check)	14	9	11	9	5	20	12	6-2	25	16	8	7
839	Kanota (Check)	13	1	9	8	1	16	4	5-30	18	6	5	2
3991	Osage (Check)	10	6	8	7	3	16	7	6-1	19	9	5	3
4301	Nemaha	10	5	9	6	3	16	8	5-31	21	14	5	4
5444	Cherokee Resel.	10	5	9	6	2	16	7	31	21	14	5	3
4988	Mo. O-205: Columbia x (V-R)	10	2	9	8	3	16	9	6-1	24	13	3	4
5323	"	10	1	9	8	2	16	8	5-31	24	13	5	4
4626	Mo. O-200: Columbia x Bond-Logold	10	1	7	8	1	13	8	5-30	20	11	3	2
4986	Columbia x Marion	9	2	8	8	1	14	7	5-30	21	11	3	2
6625	"	9	2	8	8	1	15	8	6-1	22	11	3	3
6624	(Columbia x V-R) x Clinton	10	2	8	9	2	15	8	1	22	11	3	3
6761	" : Mo. 04269	12	5	8	8	3	16	8	5-31	22	14	5	4
2820	Columbia (Check)	9	5-31	7	8	1	14	9	30	23	8	3	2
6762	(Columbia x V-R) x Clinton: Mo. 04275	11	6-2	9	7	3	16	10	30	23	13	5	4
6763	" : Mo. 04279	10	4	8	8	3	16	8	6-1	22	13	5	4
4672	(Bond x Anthony) x (Richland-Fulghum)	10	1	8	8	1	14	8	5-30	18	7	5	2
6629	Atlantio x (Clinton ₂ x Santa Fe)	13	8	14	11	5	22	11	6-3	26	17	12	8
6631	Andrew x Landhafer	11	2	8	6	3	14	7	5-29	19	10	5	2

Table 36. Date of ripening on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Nursery

grown in 1953

C. I. No.	Variety or Selection	Beltsville, Md.	Lexington, Ky.	Ames, Iowa	Lincoln, Nebr.	Average 4 Stations
		6-29	6-26	Date 7-13	7-5	7-4
6619	Andrew x Landhafer	30	26	13	6	8
6620	"	29	27	14	6	4
6621	"	29	28	13	7	5
6622	"	29	24	13	1	2
4170	Andrew (Check)	29	28	14	7	3
6623	Andrew x Landhafer	30	26	14	3	4
6630	"	29	25	13	2	3
6632	"	29	25	14	2	3
6633	"	29	26	14	2	3
6634	"	29	26	14	2	3
6636	"	29	25	14	5	2
6638	"	29	25	14	6	4
6639	"	29	25	14	4	3
3971	Clinton (Check)	30	29	8	6-29	6-30
839	Kanota (Check)	29	24	6	7-1	7-1
3991	Osage (Check)	29	25	9	1	1
4301	Nemaha	29	26	6	1	1
5444	Cherokee Resel.	29	26	6	1	1
4988	Mo. O-205: Columbia x (Victoria-Richland)	29	24	13	2	2
5323	"	29	23	12	2	2
4626	Mo. O-200: Columbia x Bond-Logold	29	23	8	1	1
4986	Columbia x Marion	29	24	9	6-30	6-30
6625	"	29	24	7	7-2	7-2
6624	(Columbia x Victoria-Richland) x Clinton	29	25	8	4	4
6761	" x Cl.: Mo. 04269	29	26	6	1	1
2820	Columbia (Check)	29	30	7	4	4
6762	(Columbia x V-R) x Clinton: Mo. 04275	29	25	10	2	2
6763	" : Mo. 04279	29	26	5	1	1
4672	(Bond x Anthony) x (Richland-Fulghum)	29	23	11	6	6
6629	Atlantic x (Clinton2 x Santa Fe)	29	29	11	2	2
6631	Andrew x Landhafer	29	25	12	2	2

Table 37. Reaction to diseases on stations reporting of varieties and hybrid selections included in the Uniform Spring Sown Red Oat Nursery grown in 1953

C. I. No.	Variety or Selection	Crown Rust		Stem Rust				Smut
		Lafayette, Ind.	Ames, Iowa	Lafayette, Ind.	Columbia, Mo.	Ames, Iowa	Lincoln, Nebr.	Kans. Manhattan
6619	Andrew x Landhafer	tr HR	1.1	5 R	5	70	3	0
6620	"	tr HR	1.1	5 R	25	14.7	13	0
6621	"	tr HR	2.7	5 R	25	18.3	20	0
6622	"	2 R	1.0	5 R	25	20.0	35	0
4170	Andrew (Check)	10 T	17.3	10 R	5	18.3	4	0
6623	Andrew x Landhafer	2 R	1.9	30 S	25	10.0	40	0
6630	"	tr HR	0.9	10 R	2	16.7	15	0
6632	"	5 R	0.8	5 R	2	15.0	18	0
6633	"	tr HR	0.8	5 R	2	11.7	8	0
6634	"	tr HR	0.8	10 R	2	15.0	5	0
6636	"	tr HR	0.7	10 R	2	11.7	T	0
6638	"	tr HR	1.4	30 S	25	36.7	50	0
6639	"	2 HR	0.8	10 R	2	15.0	20	0
3971	"	15 S	47.3	25 I-S	10	23.7	45	0
839	Kanota (Check)	15 S	44.0	20 S	10	31.7	60	0
3991	Osage (Check)	-	2.7	10 R-I	2	15.0	T	0
4301	Nemaha	3 R	20.3	30 I-S	20	15.0	25	0
5444	Cherokee Resel.	3 R	25.7	30 I-S	20	11.7	23	0
4988	Mo. O-205: Columbia x (Victoria-Richland)	20 T	18.3	10 R	2	10.0	T	0
5323	"	20 T	24.3	10 R	2	15.0	T	0
4626	Mo. O-200	3 R	38.0	10 T+S	2	10.7	T	0
4986	Columbia x Marion	50S+2R	31.3	15 I-S	2	15.3	13	0
6625	"	50 S	32.7	20 S	2	18.3	15	0
6624	(Columbia x Victoria - Richland) x Clinton	15 I-S	34.0	25 S-I	20	23.3	45	0
6761	"	10 I	29.3	25 S-I	30	40.0	64	0
2820	Columbia (Check)	-	37.0	30 S	30	43.0	55	0
6762	(Columbia x V-R) x Clinton:Mo.04275	10 S	26.0	30 S	40	28.3	35	0
6763	"	15 S	54.0	25 S	40	28.3	55	0
4672	(Bond x Anthony) x (Richland-Fulghum)	15 S	27.3	25 S-T	30	25.0	35	0
6629	Atlantio x (Clinton ₂ x Santa Fe)	10 HR	14.0	-	20	40.0	45	0
6631	Andrew x Landhafer	tr HR	0.9	10 R	2	21.7	5	0

Table 38. Summary data obtained on the Uniform Spring Sown Red Oat Experiment grown in 1953.

Rank in Yield	C.I. No.	Variety or Selection	Average Acre Yields				Average All Stations			
			Total Average (15 Sta) Bu.	East and South Rank(5 Sta) Bu.	North Central Rank(8 Sta) Bu.	Southwest Rank(5 Sta) Bu.	Test Wt. 3/11 Sta Lbs.	Plant Ht. (10 Sta) Ins.	Loose (7 Sta) o/o	Date Harvested (10 Sta)
1	6631	Andrew x Landhafer	49.7	3	9	5	30.0	27.2	39.3	6/2
2	6632	" "	49.6	13	5	3	29.7	28.0	37.9	3
3	5323	Mo. O-205:Columbia x (Victoria-Richland)	49.4	7	1	12	31.3	29.7	44.7	3
4	4988	" "	49.2	1	10	1	31.4	29.4	38.4	4
5	6633	Andrew x Landhafer	49.0	28	2	2	29.4	26.0	39.5	3
6	4170	Andrew (Check)	48.6	5	8	9	30.7	29.3	28.6	2
7	6625	Columbia x Marion	47.9	2	14	19	32.4	29.6	37.8	3
8	4626	Mo. O-200:Columbia x Bend-Iogold	47.9	9	6	22	31.9	29.5	61.1	2
9	6619	Andrew x Landhafer	47.7	29	4	8	28.9	26.3	37.2	3
10	4672	(Bond-Anthony) x (Richland-Fulghum)	47.4	10	15	25	30.8	28.2	34.9	2
11	2820	Columbia (Check)	47.1	6	13	24	30.1	29.4	38.4	2
12	6630	Andrew x Landhafer	47.1	26	11	7	28.7	27.5	39.9	4
13	6636	" "	47.1	31	3	4	27.9	27.1	37.2	3
14	6623	" "	47.0	18	12	10	30.1	28.3	32.0	3
15	6634	" "	46.8	20	7	14	28.1	26.5	43.3	3
16	6639	" "	46.5	8	19	27	30.1	27.5	28.1	3
17	4986	Columbia x Marion	46.2	15	16	15	32.1	29.6	41.1	2
18	6624	(Columbia x Victoria-Richland)x Clinton	46.2	11	17	23	31.7	30.3	37.9	3
19	6621	Andrew x Landhafer	46.2	17	22	11	29.4	28.5	32.2	3
20	6620	" "	45.6	24	18	13	29.9	28.3	30.2	3
21	6638	" "	44.2	14	23	28	29.8	28.7	32.9	3
22	6763	(Columbia x V-R) x Clinton; Mo. O4279	44.1	22	20	18	29.9	29.0	50.1	4
23	6761	" "	44.0	27	21	17	32.3	28.9	42.6	3
24	5444	Cherokee Reselection	44.0	4	29	16	30.8	28.0	27.7	3
25	4301	Nemaha	43.3	12	27	20	31.0	28.0	22.9	3
26	3991	Osege (Check)	43.2	23	24	6	29.9	24.8	43.1	3
27	6622	Andrew x Landhafer	42.9	21	28	21	32.3	28.3	30.8	3
28	6762	(Columbia x V-R) x Clinton; Mo. O4275	42.9	16	26	26	31.7	30.1	25.9	4
29	839	Kanota (Check)	41.1	25	25	29	29.3	27.7	41.1	2
30	3971	Clinton (Check)	39.4	30	30	30	29.7	28.1	22.9	7
31	6629	Atlantic x (Clinton2-Santa Fe)	34.7	19	31	31	25.5	27.7	42.2	7

1/ Beltsville, Blacksburg, Blairsville, Experiment, and Lexington
 2/ Columbus, Lafayette, Urbana, Columbia, Ames, Lincoln, Manhattan, and Hays
 3/ Lincoln, Manhattan, Hays, Stillwater, and Denton. Certain stations are included in two groups.

SOUTHERN REGION

Winter conditions in this region in 1952-53 were especially mild, and probably less winter injury to oats was reported than in any other season since these uniform fall-sown nurseries were started in the fall of 1941. Little or no winter killing was reported anywhere, and fall-sown oats made excellent yields as far north as in Kansas and the Corn Belt stations.

Although some rust infection was noted in the Corn Belt area on spring-sown oats, fall-sown crops were hardly damaged by rust anywhere. There was some storm damage; for example, at College Station, Texas, the crop was layed flat by high winds. At a few stations, notably Quincy, Florida, stem rust was damaging; but on the average the season was exceptionally favorable for fall-seeded oats.

For the past several seasons data have been received from several state stations in this region, and these reports are included for the information they add in rounding out the picture on oats in the area in 1953.

Data from the state-wide test in Oklahoma (Table 39) at from four to 11 locations indicate Woodward Composite and Mustang gave the best yields.

Data from an intra-state experiment in Texas presented in Table 40 indicate Mustang outyielded other named varieties in that state. New Nortex outyielded Mustang on some stations.

Data from stations in Florida (Table 41) indicate Seminole and Sunland were high yielding in 1953; whereas Alamo averaged approximately as much, outyielding all other entries on three stations.

As in the past, three regional nurseries were fall-seeded in 1952-53. These were (1) the Uniform Special Winter Oat Nursery, which is grown on stations from Rhode Island, Connecticut, and Massachusetts in the East, across the southern part of the Corn Belt in the so-called "border states" at a few stations in the South, and on a few stations in the Northwest in Washington and Oregon; (2) the Uniform Fall Sown Oat Experiment, for which data from stations in the mountain valleys and uplands and from the Piedmont areas are summarized separately from those reports received from the Cotton Belt and coastal areas; and (3) the data from the nursery grown in the Florida and Gulf Coastal areas where seasons are too mild for much if any winter killing to be evident. The results from each nursery will be discussed separately.

Table 39.

Yield of Different Types and Varieties of Fall-Sown Oats Grown in the Oklahoma State-Wide Small Grain Test Plots in 1952-1953*

(Data supplied by Roy M. Oswalt, Okla. A & M College, Stillwater)

<u>Types and Varieties</u>				
<u>C.I. No.</u>	<u>Victoria Derivatives</u>	<u>No. Tests</u>	<u>Yield Bu./A.</u>	<u>Percent of Forkeddeer for the same tests</u>
4206	Traveler	11	47.3	95.4
3855	Stanton Strain 1	11	46.8	94.4
4660	Mustang	6	57.4	104.7
3923	DeSoto	4	64.9	98.9
4657	Arlington	4	61.2	93.3
4599	Atlantic	4	60.0	91.5
4600	Coy	4	50.8	77.4
<u>Winter Fulghum Sel.</u>				
3169	Tennex	11	45.6	91.9
3170	Forkeddeer	11	49.6	100.0
<u>Hardy Winter Types</u>				
3424	Wintok	11	44.6	89.9
5106	Woodward Comp. Sel.	10	55.3	107.2
<u>Miscellaneous Winter Types</u>				
5107	LeConte	9	47.8	97.0
5850	Arkwin	4	53.1	80.9
4652	Taggart	4	41.7	63.6

* Data from tests in 11 counties in Oklahoma.

Mustang and LeConte were grown in the Southwest and Eastern Oklahoma. DeSoto, Arlington, Atlantic, Coy, Arkwin, and Taggart, only in Eastern Oklahoma. C.I. 5106 was grown in 10 locations, and the other five varieties were grown at 11 locations in North, Northwest, Southwest, and Eastern Oklahoma.

Table 40. Yields of fall-sown oat varieties in different parts of Texas in 1952-53

(Data supplied by I. M. Atkins, Denton, Texas)

C.I. No.	Variety	Panhandle (1 Sta)	Rolling Plains (4 Sta)	North Central (3 Sta)	Central (3 Sta)	South Central (1 Sta)
2381	Frazier	40.3	24.3	57.6	68.3	88.6
3531	Fultex	36.4	28.6	60.1	67.4	79.6
5371	Alamo	30.2	27.5	76.4	71.6	--
3422	New Nortex	31.6	33.0	68.9	77.5	81.7
2150	Ferguson 922	30.9	30.2	67.6	--	--
3424	Wintok	28.6	26.2	--	--	--
3168	Fulwin	19.9	20.2	50.4	59.6	--
4660	Mustang	30.9	24.1	81.0	72.3	94.5

Table 41. Yields of Oat Varieties Grown at Different Points in Florida in 1953

(Data supplied by W. H. Chapman, D. D. Morey, G. E. Ritchey, and others of Florida Experiment Station)

Variety or Selection	Gainesville	Live Oak	Yield in Bushels per Acre			Milton	Average	Ave. Test Wt. - 3 Locations
			Monticello	Quincy	Marianna			
Southland	27.9	67.6	49.7	57.6	29.9	52.3	47.5	29.7
Floriland	36.5	64.0	43.9	61.1	37.1	70.5	52.2	30.0
Victorgrain 48-93	35.6	64.6	48.9	56.5	38.0	73.9	52.9	30.3
Red Rustproof No. 14	16.6	48.5	40.6	50.8	46.7	53.3	42.8	26.3
Camellia	18.9	30.5	25.0	33.7	25.4	52.8	31.1	26.3
Sunland	45.7	36.3	43.7	59.6	52.4	72.7	51.7	31.5
Seminole	44.9	41.3	49.5	60.0	36.0	82.0	52.3	32.0
Alamo	43.6	54.0	39.0	71.2	34.8	88.7	55.2	31.3

Uniform Special Winter Oat Experiment

This nursery, first grown in 1947-48, has expanded rapidly through the years until 25 stations in 18 states cooperated in growing the experiment in 1952-53. In addition, seven stations grew the entries in this experiment in observation or disease nurseries. As a result, this experiment now is the most widely grown of any nursery included in the Cooperative Coordinated Oat Breeding Program. Stations growing the nursery in 1953 were as follows:

Ark.	Fayetteville	Mo.	Pierce City
Del.	Newark		Sikeston
Ill.	Carbondale	Ohio	Columbus
	Urbana	Okla.	Stillwater
Ind.	Lafayette	Oreg.	Corvallis
	Princeton	Penna.	Landisville
Kan.	Mound Valley		State College
	Hutcheson	R. I.	Kingston
Ky.	Lexington	Tenn.	Knoxville
Md.	Beltsville	Tex.	Chillicothe
Mass.	Feeding Hills		Denton
	Marion	Va.	Blacksburg
		Wash.	Mt. Vernon

The nursery was grown at Columbia, Missouri, to test the hardiness of the entries; at Ellington, Connecticut, to observe the plant growth production or forage possibilities of the oats; at Gainesville, Florida, Beltsville, Maryland, (summer nursery), Statesville, North Carolina, and Experiment, Georgia, to observe the relative disease resistance of the entries; and at Aberdeen, Idaho, to observe their purity. Because of early and excessive lodging, the nurseries at Knoxville, Tennessee, and Landisville, Pennsylvania, were not harvested. Data are in Tables 42 to 52.

Yield, Bushels Per Acre

Yield data were received from 19 stations in 1953. As killing was light, yields were exceptionally high at many points. Many entries yielded in excess of 100 bushels per acre at Princeton, Indiana; Urbana and Carbondale, Illinois; and at Newark, Delaware. The highest average yields were recorded for Mustang, Coy, Forkeddeer, and the two sister selections to Mustang, C.I. No's. 6571 and 6717. These five entries averaged 82.8, 79.8, 77.1, 76.1, and 77.7 bushels per acre, respectively. The poorest-yielding entries were C.I. 5368, New York Selection, Woodward Composite, Winter Turf, and Arkwin, none of which averaged 70 bushels per acre.

Winter Survival

Data on winter survival were received from six stations indicating differential killing was observed. Many other stations, however, reported 100 percent survival of all entries. On stations reporting killing,

stands were most severely reduced at Mound Valley, Kansas, and at Columbia, Missouri. The best average survivals were recorded for Fulwin, 94.8, Woodward Composite, 92.5, and Colo x Wintok, C.I. 5118, 92.3 percent; whereas the most killing was reported in Lemont Cross, Arkwin, C.I. 6727, and Lee, which survived on the average only 73.2, 78.7, 80.0, and 80.3 percent, respectively.

Test Weight

Data on test weight of entries in these nurseries were received from 16 stations. Except for New York Selection, which tested on the average only 29.1 pounds per bushel, all entries tested over 30 pounds per bushel. The best test weights were recorded for Colo x Wintok, 35.1, and for Wintok, LeConte, and C.I. 6728, each of which averaged 35.0 pounds per bushel.

Plant Height

A total of 15 stations reported on plant height in 1953. Oats grew tall at many stations, and the shortest entry, C.I. 5106, averaged 35.2 inches tall. All others exceeded three feet in height on the average; and Winter Turf, Lemont Cross, Fulwin, New York Selection, and Coy averaged 42.9, 41.4, 41.3, 41.3, and 41.2 inches tall, respectively.

Standing Ability

Reports received from 11 stations indicated lodging occurred at those points in 1953. The stiffest-strawed entries on the average were LeConte, Arkwin, and Lemont Cross, in which lodging averaged only 11.3, 11.7, and 15.9 percent, respectively, whereas the weakest-strawed entries were Fulwin, New York Selection, and Woodward Composite which lodged on the average 59.5, 57.4, and 44.4 percent, respectively.

Date Headed

Data on heading were received from 14 stations. All entries headed in May on the average. The earliest entries were Woodward Composite, Coy, and Lemont Cross, with average heading dates of May 11, May 14, and May 17, respectively. The last entries to head were Winter Turf and New York Selection, both of which had average heading dates of May 27.

Date Ripe

Data on date ripe were received from eight stations. On the average, all entries ripened in June. The first to ripen, Woodward Composite, ripened June 11; and the last to mature were Winter Turf, C.I. 6727, New York Selection, and LeConte, which ripened June 20, June 19, June 18, and June 18, respectively.

Resistance to Disease

Data on infection by crown rust were received from three stations. The most resistant entries appeared to be Mustang and its sister strains C.I. No's. 6571 and 6717 and Lemont Cross. The most susceptible were Wintok and Fulwin.

No reports of stem rust infection on entries in this nursery were received in 1953, although many entries are known to be highly susceptible.

Smut was observed at four points. Among the most severely infected entries were Mustang, Lee, Wintok, and C.I. No's. 5368 and 5118.

Data on red leaf were received from Princeton, Indiana, where Wintok, C.I. 6727, and Dubois appeared most affected and many entries were comparatively free of this trouble.

The presence of Helminthosporium was observed at Kingston, Rhode Island, and percents of infection by mildew were reported from Blacksburg, Virginia. The most severely affected entries at Blacksburg were Arkwin and Coy, although others were nearly as badly affected. The least affected entries were C.I. No's. 6727 and 6728.

Forage Value and Type of Growth

Data on forage ratings in the fall were received from five stations and in the spring from seven. The most vigorous fall growth was recorded for Arkwin, Coy, Colo x Wintok, C.I. 5118, and Woodward Composite. All exceeded Lee check, whereas none of the other entries equalled check.

In the spring Coy gave the highest average, followed by Colo x Wintok C.I. 5118, Woodward Composite, and Mustang, all with averages of from 5 to 11 percent or more above Lee check.

Type of Growth

Data on growth type were received from four points. As the winter was so mild, most entries continued to grow somewhat throughout the winter; and as a result, the data on type of growth are not conclusive this year.

Table 42. Yields on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

I.I. No.	Variety or Selection	Average 19 Stations	Ellington, Conn.	Kingston, R. I.	Reading Hills, Mass.	Newark, Del.	State College, Penna.	Beltsville, Md.	Blacksburg, Va.	Columbus, Ohio	Lexington, Ky.	Princeton, Ind.	Urbana, Ill.	Carbondale, Ill.	Sikeston, Mo.	Pierce City, Mo.	Fayetteville, Ark.	Mound Valley, Kan.	Stillwater, Okla.	Chillicothe, Tex.	Mt. Vernon, Wash.
5107	LeConte	73.0	52.1	37.0	76.4	90.0	82.6	73.5	97.6	123.0	84.4	104.3	104.0	103.2	50.2	39.8	86.3	39.8	69.9	28.5	44.0
5118	Colo x Wintok	71.1	63.8	41.2	78.0	83.1	67.7	82.7	82.3	58.6	69.2	90.5	106.9	127.8	39.7	52.8	112.1	53.8	71.4	13.7	55.0
5850	Arkwin	69.7	66.8	45.1	63.2	97.7	58.6	75.8	79.7	102.8	66.4	116.8	88.5	87.4	67.1	37.5	103.7	29.0	69.2	22.7	46.6
3424	Wintok	71.3	78.5	30.3	89.1	84.5	67.5	72.8	71.9	64.4	54.4	81.5	94.2	117.4	62.1	66.1	96.3	68.4	76.3	29.1	50.0
5106	*Woodward Comp. Sel.	68.4	65.5	48.9	51.8	92.3	1/1	80.3	80.5	67.6	63.0	102.6	82.0	71.0	62.2	53.1	56.8	77.8	89.8	27.2	51.0
5168	Fulwin	74.1	90.7	43.4	80.2	72.1	7/1	65.0	87.8	67.9	65.3	84.7	116.6	102.0	52.7	55.0	117.8	59.0	73.5	37.5	59.6
4660	Mustang	82.8	72.0	36.6	79.7	102.7	95.7	85.0	90.2	111.3	95.8	107.3	108.2	130.8	66.0	34.4	123.7	57.2	84.4	31.1	61.0
3571	*(L-V) x Fulwin	76.1	83.3	46.3	73.3	97.8	82.0	82.6	70.9	106.6	83.6	111.1	109.0	115.4	50.0	35.1	75.9	49.8	79.6	36.2	57.3
5717	"	77.7	85.1	41.7	79.7	96.2	59.6	82.7	74.9	111.3	83.0	108.1	116.7	123.8	48.1	44.4	103.3	63.2	78.4	24.0	52.0
2042	Lee (check)	74.8	82.8	40.4	87.7	101.9	78.2	82.7	82.0	65.6	81.2	76.4	99.0	145.6	72.1	34.0	112.9	37.4	70.2	32.4	38.6
4600	Coy	79.8	60.1	46.3	76.1	105.7	79.3	97.8	93.7	113.0	86.6	122.8	94.7	122.2	58.4	52.5	74.5	55.8	86.1	25.3	65.3
3170	Forkedee	77.1	82.2	43.5	68.3	92.7	88.7	86.0	79.5	86.6	86.0	92.4	113.3	103.0	49.4	59.9	116.5	59.6	81.5	34.5	40.6
5727	Clinton-Forkedee	73.1	84.5	55.3	82.8	92.8	75.3	82.8	85.5	118.6	66.4	89.0	109.1	84.6	68.5	49.2	71.1	16.8	73.3	26.2	56.3
5728	"	72.9	84.6	37.4	80.8	102.5	75.5	75.0	82.4	92.6	57.6	102.5	88.4	97.6	70.5	35.8	99.8	39.0	77.7	30.2	57.3
5368	*Clinton-H. Culb.	64.5	66.5	46.7	52.0	77.9	90.1	69.0	63.3	80.9	56.2	92.1	96.1	63.8	46.7	44.4	83.6	47.2	77.6	27.8	43.0
3296	Winter Turf	69.5	72.5	45.8	52.0	100.2	1/1	79.8	70.5	95.5	74.7	86.6	107.0	138.2	41.1	48.3	74.0	19.0	60.2	8.2	47.6
5718	Lemont Cross	75.0	64.4	54.0	50.7	98.7	72.6	93.5	94.2	114.3	73.1	137.0	78.6	105.0	57.4	22.6	89.5	57.4	85.7	28.5	56.3
5364	New York Sel.	66.7	92.1	42.5	94.7	69.7	67.1	71.5	56.5	93.9	61.8	63.9	128.3	101.0	34.4	46.6	71.8	57.4	65.7	11.1	38.0
5572	Dubois	70.5	4/	26.0	2/	95.9	85.3	65.0	5/	93.4	73.2	97.0	75.2*	94.2	6/	7/	95.5	63.4	79.4	26.1	40.6

1/ Average of station, 76.6, substituted for missing data.

* Evidently a substitution.

Woodward Comp. Sel.= Woodward Composite Selection; L-V = Lee-Victoria; H. Culb. = Hairy Culberson

Table 43. Survival on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 6 Stations	Kingston, R. I.	Feeding Hills, Mass.	Lafayette, Ind.	Urbana, Ill.	Columbia, Mo.	Mound Valley, Kan.
5107	LeConte	85.3	96	100	78	98	80	60
5118	Colo x Wintok	92.3	100	100	95	100	85	74
5850	Arkwin	78.7	96	100	95	90	65	26
3424	Wintok	89.8	100	100	75	100	85	79
5106	Woodward Composite Selection	92.5	98	100	90	98	80	89
3168	Fulwin	94.8	100	100	95	100	88	86
4660	Mustang	89.3	95	100	80	100	78	83
6571	(Lee-Victoria) x Fulwin: Tex. 3770-7	87.2	95	100	68	91	85	84
6717	" " : Tex. 3770-1	90.2	100	100	75	98	85	83
2042	Lee (check)	80.3	98	100	55	100	70	59
4600	Coy	85.8	100	100	63	98	73	81
3170	Forkedeer	91.0	100	100	83	100	80	83
6727	Clinton-Forkedeer: Ind. 4011-14-4-3	80.0	100	100	78	100	85	17
6728	" " : Ind. 4011-5-3-1-3	86.2	95	100	90	98	88	46
5368	Clinton x Hairy Culberson: Ind.	85.8	97	90	95	100	83	50
3296	Winter Turf	85.7	100	100	93	100	70	51
6718	Lemont Cross	73.2	100	85	85	95	73	1
5364	New York Selection	91.3	96	100	73	100	90	89
6572	Dubois	89.8	92	100	90	98*	90	80

Table 44. Type of growth on stations reporting of varieties and selections in the Uniform Special Winter Oat Experiment in 1952-53.

[illegible]

1/	Average of station, 99, substituted for missing data.
2/	" " " " " "

1/ Different type of rating was used; therefore, this was not included in the average.

2/ D = Decumbent; I = Intermediate; U = Upright

***Evidently a substitution

* Data from Columbia were from a nursery to determine hardiness only.
100 o/o survival was reported at Ellington, Conn.; Beltsville, Md.; Blacksburg, Va.; Lexington, Ky.; Princeton, Ind.; Carbondale, Ill.; Stillwater, Okla.; and Corvallis, Oreg.; and Denton, Tex.

Table 45. Test weights on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 16 Stations	Ellington, Conn.	Kingston, R. I.	Feeding Hills, Mass.	Newark, Del.	State College, Penn.	Beltville, Md.	Blacksburg, Va.	Columbus, Ohio	Lexington, Ky.	Princeton, Ind.	Urbana, Ill.	Sikeston, Mo.	Pierce City, Mo.	Fayetteville, Ark.	Mound Valley, Kan.	Stillwater, Okla.
										Pounds								
5107	LeConte	35.0	39.5	33.0	36.0	36.0	33.1	29.0	35.5	37.4	37.5	38.5	34.2	34.0	33.5	31.5	34.1	37.0
5118	Colo x Wintok	35.1	39.0	35.0	35.5	36.7	33.7	34.0	32.8	38.0	37.3	34.2	34.0	35.0	34.0	34.0	30.8	37.8
5850	Arkwin	34.3	38.5	35.0	35.5	35.4	33.8	29.0	32.7	37.0	37.8	37.3	34.9	34.0	31.0	32.2	30.9	34.4
3424	Wintok	35.0	38.0	34.5	35.0	36.7	34.7	32.0	34.0	37.9	37.4	34.1	35.0	36.0	34.0	33.5	29.4	37.2
5106	Woodward Composite Sel.	30.8	34.5	33.8	32.5	33.0	1/	28.0	25.7	33.9	32.9	29.7	30.5	30.0	27.5	27.8	25.2	34.4
3168	Fulwin	32.8	35.0	34.8	32.0	33.4	1/	26.0	30.7	34.4	36.6	33.3	34.2	33.0	33.0	30.9	29.3	34.2
4660	Mustang	32.5	35.0	33.5	31.0	33.7	31.9	26.5	32.6	35.7	36.9	32.5	33.0	33.0	31.5	31.8	25.8	35.3
6571	(L-V) x Fulwin:Tex. 3770-7	32.6	36.5	34.5	32.0	33.1	33.1	27.0	32.6	32.9	38.1	35.7	33.1	33.0	27.5	31.1	28.2	33.4
6717	" " :Tex. 3770-1	32.4	35.5	34.0	31.5	30.8	34.4	28.0	30.0	34.2	38.1	34.7	33.3	35.0	28.0	28.5	30.0	33.0
2042	Lee (check)	34.5	39.0	36.0	36.0	35.9	35.1	29.0	33.3	38.4	36.5	33.9	36.6	34.0	29.0	33.6	31.9	34.4
4600	Coy	32.9	37.0	34.8	33.5	35.3	31.1	27.5	31.0	35.7	37.8	33.5	31.0	33.0	31.0	29.3	29.6	35.6
3170	Forkedeer	33.9	38.0	34.2	33.0	36.4	34.2	30.0	31.1	37.1	38.4	34.4	34.9	33.5	32.5	31.0	27.8	35.4
6727	Clinton-Forkedeer:Ind.	33.1	37.0	33.8	32.5	33.3	35.7	28.5	32.1	34.0	38.8	35.0	32.2	32.0	29.0	32.7	31.5	30.9
6728	" :Ind.	35.0	38.5	35.5	34.0	37.4	34.4	30.0	32.6	39.1	40.9	38.8	34.9	33.0	34.0	31.2	30.2	35.0
5368	Clinton-Hairy Culberson:Ind.	34.1	37.0	34.3	34.0	36.2	33.9	31.0	33.0	37.4	39.8	36.7	33.4	33.0	30.0	32.5	27.6	36.5
3296	Winter Turf	31.7	35.5	32.0	34.0	30.5	1/	26.0	29.1	31.8	38.1	33.7	32.2	31.0	31.0	30.3	30.5	28.5
6718	Lemont Cross	34.5	37.5	33.5	34.5	35.6	33.1	32.0	34.1	37.0	40.0	38.0	32.0	33.5	31.0	32.7	2/	37.6
5364	New York Selection	29.1	33.0	30.5	30.0	25.8	32.8	24.0	25.6	29.9	34.7	30.7	30.2	30.0	25.5	27.8	27.7	28.1
6572	Dubois	34.0	3/	33.8	4/	35.6	34.5	32.0	5/	38.6	39.6	34.5	33.2*	6/	7/	31.8	28.2	36.7

1/ Average of station, 33.7, substituted for missing data.

Evidently a substitution.

**L-V=Lee-Victoria

Table 46. Plant heights on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 15 Stations	Ellington, Conn.	Kingston, R. I.	Feeding Hills, Mass.	Newark, Del.	State College, Penna.	Beltsville, Md.	Blacksburg, Va.	Lexington, Ky.	Princeton, Ind.	Urbana, Ill.	Carbondale, Ill.	Pierce City, Mo.	Stillwater, Okla.	Chillicothe, Tex.	Corvallis, Oreg.
5107	LeConte	39.4	40.0	25.0	46.0	44.0	35.7	39.0	44.0	41.0	50.0	37.0	48.0	38.0	35.0	21.0	48.0
5118	Colo x Wintok	39.4	44.0	21.0	48.0	42.0	34.2	40.0	43.0	43.0	46.0	37.0	48.0	39.0	35.0	19.0	52.0
5850	Arkwin	39.5	43.0	21.0	49.0	42.0	31.9	38.5	41.0	43.0	50.0	38.0	47.0	40.0	36.0	23.0	49.0
3424	Wintok	37.3	44.0	16.0	47.0	39.0	32.7	33.5	42.0	40.0	40.0	36.0	47.0	38.0	34.0	21.0	50.0
5106	Woodward Composite Selection	35.2	40.0	23.0	40.0	39.0	1 1/2	33.5	36.0	34.0	39.0	35.0	43.0	34.0	30.0	19.0	47.0
3168	Fulwin	41.3	48.0	24.0	49.0	45.0	1 1/2	41.5	48.0	43.0	44.0	41.0	52.5	38.0	38.0	25.0	47.0
4660	Mustang	38.4	41.0	20.0	44.0	41.0	35.6	35.5	43.0	43.0	46.0	37.0	49.0	39.0	33.0	20.0	2 1/2
6571	(Lee-Victoria) x Fulwin, Tex. 3770-7	39.2	45.0	18.0	45.0	40.0	35.9	38.5	42.0	43.0	46.0	37.0	51.0	36.0	35.0	24.0	51.0
6717	" " ; Tex. 3770-1	38.5	43.0	18.0	45.0	40.0	34.9	37.5	42.0	41.0	46.0	38.0	49.0	35.0	36.0	23.0	49.0
2042	Lee (check)	39.8	45.0	18.0	49.0	42.0	34.9	40.0	42.0	42.0	47.0	40.0	51.5	37.0	35.0	21.0	53.0
4600	Coy	41.2	42.0	28.0	48.0	43.0	35.2	40.0	45.0	45.0	50.0	41.0	51.5	38.0	36.0	25.0	50.0
3170	Forkedeeer	40.2	44.0	19.0	45.0	47.0	35.6	41.0	45.0	40.0	48.0	39.0	48.5	38.0	39.0	26.0	48.0
6727	Clinton-Forkedeeer: Ind. 4011-14-4-3	38.1	44.0	21.0	47.0	39.0	35.3	37.5	42.0	40.0	42.0	36.0	43.0	36.0	36.0	23.0	49.0
6728	" " : Ind. 4011-5-3-1-3	36.7	43.0	18.0	41.0	38.0	33.9	36.0	41.0	36.0	44.0	33.0	45.0	36.0	33.0	21.0	52.0
5368	Clinton x Hairy Culberson: Ind.	38.4	45.0	20.0	46.0	40.0	32.9	36.5	44.0	38.0	49.0	35.0	46.0	39.0	34.0	22.0	49.0
3296	Winter Turf	42.9	50.0	19.0	54.0	47.0	1 1/2	43.0	44.0	44.0	52.0	41.0	58.0	36.0	40.0	29.0	51.0
6718	Lemont Cross	41.4	43.0	26.0	47.0	44.0	39.4	38.5	45.0	47.0	52.0	40.0	50.0	37.0	39.0	24.0	49.0
5364	New York Selection	41.3	48.0	19.0	53.0	44.0	36.2	40.0	44.0	44.0	44.0	41.0	50.0	40.0	41.0	25.0	51.0
6572	Dubois	37.3	3 1/2	17.0	4 1/2	38.0	34.7	39.0	5 1/2	37.0	44.0	34.0	45.0	6 1/2	31.0	20.0	48.0

1/	Average of station,	34.9,	substituted for missing data.
2/	" "	49.6	" "
3/	" "	44.0	" "
4/	" "	46.8	" "
5/	" "	42.9	" "
6/	" "	37.4	" "

Evidently a substitution

Table 47. Percent of lodging on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.*

C.I. No.	Variety or Selection	Average 11 Stations	Ellington, Conn.	Feeding Hills, Mass.	Newark, Del.	State College, Penna.	Beltsville, Md.	Blacksburg, Va.	Columbus, Ohio	Lexington, Ky.	Princeton, Ind.	Fayetteville, Ark.	Mound Valley, Kan.
5107	LeConte	11.3	0	0	15.0	13.9	0	62.0	0	13.0	12.0	0	8.0
5118	Colo x Wintok	29.9	0	0	0	34.1	0	97.0	55.0	27.0	73.0	20.0	23.0
5850	Arkwin	11.7	0	0	8.0	17.8	0	79.0	0	1	8.0	0	16.0
3424	Wintok	36.8	0	0	50.0	38.2	0	100.0	70.0	22.0	67.0	30.0	28.0
5106	Woodward Composite Selection	44.4	0	0	94.0	1/	5.0	100.0	75.0	85.0	29.0	5.0	71.0
3168	Fulwin	59.5	60.0	0	95.0	1/	90.0	95.0	65.0	82.0	80.0	20.0	43.0
4660	Mustang	25.8	0	0	18.0	33.6	10.0	94.0	50.0	8.0	52.0	5.0	13.0
6571	(Lee-Victoria) x Fulwin:Tex. 3770-7	20.1	0	0	20.0	11.0	12.5	75.0	35.0	5.0	38.0	0	25.0
6717	" " :Tex. 3770-1	28.8	30.0	0	80.0	8.3	15.0	79.0	35.0	5.0	40.0	0	25.0
2042	Lee (check)	31.3	30.0	0	3.0	40.0	3.5	87.0	35.0	68.0	70.0	0	8.0
4600	Coy	22.5	0	0	0	36.8	0	91.0	40.0	3.0	44.0	0	33.0
3170	Forkeddeer	34.6	0	0	60.0	57.2	2.0	91.0	50.0	13.0	63.0	25.0	19.0
6727	Clinton-Forkeddeer:Ind. 4011-14-4-3	21.1	25.0	0	20.0	6.0	1.0	74.0	15.0	8.0	48.0	10.0	25.0
6728	" " :Ind. 4011-5-3-1-3	18.0	0	0	0	5.4	0	65.0	15.0	3.0	67.0	10.0	33.0
5368	Clinton x Hairy Culberson:Ind.	23.0	0	0	10.0	23.1	0	74.0	15.0	40.0	31.0	10.0	50.0
3296	Winter Turf	19.3	0	0	0	1/	10.0	67.0	25.0	5.0	58.0	0	23.0
6718	Lemont Cross	15.9	0	0	30.0	4.4	6.0	57.0	25.0	7.0	17.0	0	2/
5364	New York Selection	57.4	70.0	50.0	58.0	43.0	50.0	82.0	70.0	53.0	77.0	30.0	48.0
6572	Dubois	20.1	3/	4/	0	11.2	5.0	5/	20.0	15.0	51.0	0	23.0

1/ Average of station, 24.0, substituted for missing data.

2/ " " 28.6
3/ " " 11.9
4/ " " 2.8
5/ " " 81.6

At Mt. Vernon, Washington, oats lodged too badly to estimate.

Table 48. Date of heading on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.*

C.I. No.	Variety or Selection	Average 15 Stations	Ellington, Conn.	Feeding Hills, Mass.	Newark, Del.	State College, Penna.	Beltsville, Md.	Columbus, Ohio	Lexington, Ky.	Urbana, Ill.	Columbia, Mo.	Fayetteville, Ark.	Mound Valley, Kan.	Stillwater, Okla.	Chillicothe, Tex.	Mt. Vernon, Wash.	Corvallis, Oreg.
5107	LeConte	5/22	5/31	6/2	5/14	5/27	5/12	6/22	5/18	5/28	5/24	4/28	5/14	5/15	4/27	5/29	5/30
5118	Colo x Wintok	21	6/1	1	15	29	11	22	19	29	22	5/2	11	6	25	23	6/4
5850	Arkwin	18	5/31	1	13	24	8	20	17	25	23	4/22	10	9	18	22	5/26
3424	Wintok	20	30	2	14	28	9	22	18	27	23	28	9	7	16	23	30
5106	Woodward Composite Sel.	11	26	5/25	8	1/	2	14	5	24	18	5	3	4/24	9	17	16
3168	Fulwin	19	31	6/2	13	1/	10	22	18	27	22	16	10	5/8	20	24	30
4660	Mustang	19	31	2	13	25	7	20	17	28	23	22	9	6	18	25	2/3
6571	(L-V) x Fulwin: Tex. 3770-7	24	6/1	3	15	6/2	12	26	21	29	27	5/5	11	14	27	30	6/3
6571	" " " " : Tex. 3770-1	24	2	2	15	2	12	25	21	29	27	5	11	14	26	31	3
2042	Lee (check)	21	1	1	13	5/27	10	22	17	28	23	4/28	17	10	28	25	5/30
4600	Coy	14	5/31	5/26	8	23	4	14	13	25	21	8	9	4/30	15	18	23
3170	Forkedeer	20	31	6/1	14	26	11	22	17	27	23	5/1	11	5/9	21	24	30
6727	Clinton-Forkedeer: Ind.	26	6/1	9	18	6/2	16	26	22	29	27	6	16	18	26	6/2	6/4
6728	" " "	21	5/31	3	15	5/25	16	23	19	29	23	3	11	9	15	5/27	2
5368	Clinton x H. Culb.: Ind.	20	28	2	15	24	12	22	17	27	22	4/28	11	6	16	27	10
3296	Winter Turf	27	6/2	6	18	1/	18	29	25	29	27	5/5	18	19	5/3	6/8	1
6718	Lemont Cross	17	5/31	3	8	6	6	18	11	25	21	4/22	3/	5	4/18	5/25	5/24
5364	New York Selection	27	6/2	5	18	6/3	17	27	24	30	27	5/12	17	18	5/3	6/1	6/8
6572	Dubois	21	4/	5/	15	5/26	15	22	18	25*	6/	1	10	8	4/16	5/31	5/31

1/ Average of station, 5/28, substituted for missing data.

Data received from Kingston, R.I., and Princeton, Ind., were expressed in maturity classes only; so they were omitted here.

** L-V = Lee-Victoria; H. Culb. = Hairy Culberson

* Evidently a substitution

Table 49. Date of ripening on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 7 Stations	Ellington, Conn.	Feeding Hills, Mass.	Beltsville, Md.	Lexington, Ky.	Mound Valley, Kan.	Stillwater, Okla.	Chillicothe, Tex.
5107	LeConte	6/18	7/3	7/2	6/16	6/21	6/13	6/4	6/1
5118	Colo x Wintok	16	3	1	13	20	9	3	5/31
5850	Arkwin	14	6/30	1	12	16	9	2	29
3424	Wintok	14	7/2	1	10	19	7	1	24
5106	Woodward Composite Selection	11	6/27	6/28	10	10	9	5/30	24
3168	Fulwin	15	7/2	7/1	13	19	9	6/1	26
4660	Mustang	14	3	1	12	17	9	2	25
6571	(Lee-Victoria) x Fulwin:Tex. 3770-7	16	4	4	12	20	10	3	27
6717	" " :Tex. 3770-1	16	4	4	12	20	11	3	28
2042	Lee (check)	17	3	4	13	20	15	2	29
4600	Coy	14	3	1	13	15	8	2	24
3170	Forkedeer	14	1	1	13	18	10	1	24
6727	Clinton x Forkedeer:Ind. 4011-14-4-3	19	4	5	16	22	19	6	31
6728	" " :Ind. 4011-5-3-1-3	14	1	1	14	20	11	5/31	22
5368	Clinton x Hairy Culberson:Ind.	13	6/30	1	13	19	11	30	21
3296	Winter Turf	20	7/5	5	15	24	20	6/6	6/2
6718	Lemont Cross	14	3	2	13	14	1	2	5/22
5364	New York Selection	18	5	5	13	24	13	5	6/1
6572	Dubois	14	2/	3/	14	20	9	1	5/19

1/ Average of station, 6/12, substituted for missing data.
 2/ " " " " "
 3/ " " " " "

Table 50. Reactions to diseases on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	CROWN RUST		SMUT*			RED- LEAF	HELMIN- THOSPORIUM	MILDEW
		Ind. Princeton,	Reac.	Hayetteville, Ark.	Ellington, Conn.	Feeding Hills, Mass.			
		%	%	%			Kingston, R. I.	Kingston, R. I.	Blacksburg, Va.
5107	LeConte	20	I-S	30	0	0	MLL	Range	%
5118	Colo x Wintok	15	S	10	.001	.004	MLL	T-T	12
5850	Arkwin	15	S	10	0	0	MMH	T-T	12
3424	Wintok	30	S	50	0	0	MMH	T-3°	39
5106	Woodward Composite Selection	10	S	30	.002	0	-	T-L	25
3168	Fulwin	30	S	30	0	0	-	T-2°	19
4660	Mustang	3	S	T	.004	.001	MLM	T-1°	22
6571	(Lee-Victoria) x Fulwin:Tex. 3770-7	1	R	T	.001	0	-	T-T	17
6717	" " :Tex. 3770-1	5	R	T	0	0	-	1°/0-3°	25
2042	Lee (check)	25	S	30	.002	.003	LLL	1°/0-2°	21
4600	Coy	20	I-S	20	0	0	-	T-T	25
3170	Forkedeer	20	S	20	0	0	L	T-3°	30
6727	Clinton-Forkedeer:Ind. 4011-14-4-3	30	S	20	0	.001	LFL	T-1°	25
6728	" " :Ind. 4011-5-3-1-3	20	S	10	0	0	-	1°/0-2°	9
5368	Clinton x Hairy Culberson:Ind.	30	S	5	.005	.003	LMH	T-T	9
3296	Winter Turf	10	S	5	.002	0	TT	T-1°	16
6718	Lemont Cross	5	R	T	0	0	L	T-3°	12
5364	New York Selection	20	S	T	0	.001	LLL	T-T	20
6572	Dubois	30	S	10	-	-	-	T-1°	21

1/ Red leaf rating: 1 = Trace; 2 = Light; 3 = Moderate; 4 = Heavy
 2/ M = Medium; L = Light; T = Trace; Red leaf was observed in Winter Turf at Kingston.
 3/ Foliage mostly killed by a disease which appears to be caused by an unknown species of Cladosporium.
 Smut was also observed at Beltsville in C.I. 5118, Wintok, Fulwin, Lee, Coy, Winter Turf, and Lemont Cross.

Table 51. Forage growth in the Fall and Spring on stations reporting of varieties and hybrid selections included in the Uniform Special Winter Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	FALL					SPRING								
		Average 5 Stations	Ellington, Conn.	Lexington, Ky.	Feeding Hills, Mass.	Beltsville, Md.	Blacksburg, Va.	Average 7 Stations	Ellington, Conn.	Lexington, Ky.	Feeding Hills, Mass.	Stillwater, Okla.	Beltsville, Md.	Chillicothe, Tex.	Mt. Vernon, Wash.
5107	LeConte	91.0	85	113	70	94	93	93.4	85	107	95	91	97	112	67
5118	Colo x Wintok	103.0	95	112	100	105	103	108.1	90	118	105	104	105	125	110
5850	Arkwin	113.2	105	135	108	108	110	101.9	95	127	95	101	91	118	86
3424	Wintok	98.0	95	103	100	94	98	101.1	100	120	105	100	105	125	53
5106	Woodward Composite Selection	101.2	100	123	81	103	99	107.7	100	140	97	110	111	125	71
3168	Fulwin	97.6	95	108	84	103	98	97.6	100	110	100	103	110	112	104
4660	Mustang	95.8	95	105	84	102	93	105.9	95	117	100	103	85	125	43
6571	(Lee-Victoria) x Fulwin: Tex. 3770-7	89.0	90	100	76	90	89	89.6	95	87	97	95	88	131	24
6717	" " : Tex. 3770-1	93.2	90	97	89	95	95	87.0	95	83	97	91	100	100	100
2042	Lee (check)	100.0	100	100	100	100	100	100.0	100	100	100	100	100	118	129
4600	Coy	103.8	105	105	105	103	101	111.3	100	112	98	109	113	125	90
3170	Forkeddeer	96.2	90	105	93	95	98	102.6	95	102	97	104	105	125	39
6727	Clinton-Forkeddeer: Ind. 4011-14-4-3	93.4	95	105	80	92	95	90.4	95	100	87	96	91	125	67
6728	" " : Ind. 4011-5-3-1-3	93.4	90	105	80	94	98	96.1	95	113	102	93	91	112	76
5368	Clinton x Hairy Culberson: Ind.	96.4	95	115	84	93	95	89.3	90	88	87	109	75	100	90
3296	Winter Turf	94.4	95	87	84	106	100	100.3	95	102	95	105	103	112	81
6718	Lemont Cross	95.2	90	105	90	93	98	92.1	85	118	72	105	78	106	67
5364	New York Selection	92.0	90	97	84	99	90	101.0	100	110	100	108	110	112	71
6572	Dubois	97.6	100	115	2	94	3	99.9	4	118	5	99	95	125	

1/ Average of station, 94, substituted for missing data.

88	"	"	"
97	"	"	"
95	"	"	"
96	"	"	"

Table 52. Summary data on oat varieties and selections included in the Uniform Special Winter Oat Experiment in 1952-53

Rank in C.I. Yield No.	Variety or Selection	Yield per Acre (19 Sta) Bu.	Winter Survival (6 Sta) %	Test Weight (16 Sta) Lbs.	Plant Height (15 Sta) Ins.	Lodg- ing (11 Sta) %	Head- ing (14 Sta) Date	Forage Rating Fall (5 Sta) %	Forage Rating Spring (7 Sta) %	Growth Type (4 Sta)
1	4660 Mustang	82.8	89.3	32.5	38.4	25.8	5/17	95.8	105.9	D-I
2	4600 Coy	79.8	85.8	32.9	41.2	22.5	12	103.8	111.3	I
3	6717 (Lee-Victoria) x Fulwin	77.7	90.2	32.4	38.5	28.8	21	93.2	87.0	D-I
4	3170 Forkedeer	77.1	91.0	33.9	40.2	34.6	18	96.2	102.6	D-I
5	6571 (Lee-Victoria) x Fulwin	76.1	87.2	32.6	39.2	20.1	21	89.0	89.6	D-I
6	6718 Lemont Cross	75.0	73.2	34.5	41.4	15.9	15	95.2	92.1	I
7	Lee (check)	74.8	80.3	34.5	39.8	31.3	19	100.0	100.0	D
8	3168 Fulwin	74.1	94.8	32.8	41.3	59.5	17	97.6	97.6	D
9	6727 Clinton-Forkedeer	73.1	80.0	33.1	38.1	21.1	23	93.4	90.4	D
10	5107 LeConte	73.0	85.3	35.0	39.4	11.3	20	91.0	93.4	D-I
11	6728 Clinton-Forkedeer	72.9	86.2	35.0	36.7	18.0	19	93.4	96.1	D
12	3424 Wintok	71.3	89.8	35.0	37.3	36.8	17	98.0	101.1	D-I
13	5118 Colo x Wintok	71.1	92.3	35.1	39.4	29.9	19	103.0	108.1	I
14	6572 Dubois	70.5	89.8	34.0	37.3	20.1	19	97.6	99.9	D-I
15	5850 Arkwin	69.7	78.7	34.3	39.5	11.7	16	113.2	101.9	I-U
16	3296 Winter Turf	69.5	85.7	31.7	42.9	19.3	25	94.4	100.3	D-I
17	5106 Woodward Composite	68.4	92.5	30.8	35.2	44.4	9	101.2	107.7	I-U
18	5364 New York Selection	66.7	91.3	29.1	41.3	57.4	25	92.0	101.0	D-I
19	5368 Clinton x Hairy Culberson	64.5	85.8	34.1	38.4	23.0	17	96.4	89.3	I

Uniform Fall Sown Oat Experiment

In 1952-53 this experiment was seeded on 27 stations as follows:

Ala.	Belle Mina	La.	Baton Rouge
	Camden		Crowley
	Tallassee		St. Joseph
Ark.	Fayetteville	Md.	Beltsville
	Stuttgart	Miss.	State College
Fla.	Gainesville		Stoneville
	Jay		Stoneville Ped. Seed Co.
	Quincy	N.C.	McCullers (Raleigh)
Ga.	Athens		Plymouth
	Experiment		Statesville
	Thomasville	S.C.	Hartsville
	Tifton	Tex.	College Station
Ky.	Hopkinsville		Denton
		Va.	Warsaw

In addition, the entries in this nursery were grown in an observation nursery at Aberdeen, Idaho, and in disease gardens at Beltsville, Maryland, (summer seeded); Gainesville, Florida; Statesville, North Carolina; and Experiment, Georgia.

As in 1952, the nursery included 33 entries. Checks were Appller, included twice, and the local check variety, whatever that happened to be. This left 30 entries, which included the leading varieties of the area and the most promising selections of which seed was available for supplying the cooperators.

Data for 1953 are included in Tables 53 to 67 , inclusive.

Yield, Bushels per Acre

Since the winter was unusually mild and diseases were not expecially destructive in the South, the yields in 1952-53 were better than average; however, destructive storms which beat the unusually lush growth into the mud resulted in some stations being unable to harvest their tests. As a result, only 11 reports on yield were received from the more northern and 11 from the more southern points. This was a reduction of two points in the northern area under 1952. The crop was lost at Stuttgart, Arkansas, and State College, Mississippi. As in previous years, the reports on yields from the more northern stations were summarized separately from those received from stations in areas where winters are more mild.

On the more northern stations yields were exceptionally large in 1953. Most entries averaged in excess of 75 bushels per acre in the area; and two, Southland and Victorgrain, averaged 93.5 and 92.2 bushels per acre, respectively. Other high yielders in the area were Arlington, 89.4, Delair, 86.5, and Alamo, 86.3. None of these can be classed as especially hardy oats, and clearly hardiness was no advantage in the area this year.

The poorest yields often were made by the more hardy entries. The two entries yielding the least, C.I. No's. 6730 and 6731, averaged 65.1 and 68.2 bushels per acre, respectively, on northern stations in 1953.

On more southern stations Victorgrain yielded best, 62.3 bushels, followed by C.I. No's. 5372 and 6719, Alamo, Local check, and DeSoto, averaging 59.6, 59.0 56.9 56.7, and 55.1 bushels per acre, respectively. The poorest yielders on the more southern stations in 1953 were C.I. No's. 6731, 6603, 6574, and 6730, which averaged only 41.4, 44.8, 45.0, and 45.6 bushels, respectively. C.I. 6730 was among the poorest yielding entries in both areas.

Winter Hardiness

Only three stations reported any differential killing in 1952-53; and as average survivals were all in excess of 90 percent, the survival data merit little consideration for this year. At most stations no killing whatever was observed. Data received appear in Table 66.

Test Weight

Data on test weights were reported from 13 stations in 1953. Beltsville data were not included in the average. The quality of grain produced differed widely. Three entries, Alamo, Delair, and Victorgrain, tested best with averages of 34.2, 34.0, and 33.1 pounds per bushel, respectively. The poorest average test weights were recorded for Applier, and C.I. No's. 6724, 6725, and 6729, which averaged 28.3, 28.4, 28.7, and 28.7 pounds per bushel, respectively.

Plant Height

Data on plant height were reported from 14 stations. Oats grew tallest at Belle Mina and Tallassee, Alabama; Baton Rouge, Louisiana; and at Stoneville Pedigreed Seed Co., Stoneville, Mississippi. They grew shortest at Denton, Texas. Oats grew excessively tall on the average in 1953. This resulted in extreme lodging and loss of the crop on several stations. In average height these oats ranged from 40.6 inches tall for Fultex and 40.9 for C.I. 5372 to 53.5 inches for C.I. 6603. Many entries measured in excess of four feet tall, and few averaged less than three feet six inches tall.

Standing Ability

Lodging percents of a differential nature were reported from 10 stations, and one additional station reported lodging in degrees. In addition, several stations reported 100 percent lodging of all entries. The least amounts of lodging were reported at Athens, Georgia, and Denton, Texas.

On the average, the stiffest-strawed oats in 1953 were C.I. No's. 6602 and 6719, which lodged only 12.1 and 13.3 percent, respectively; whereas many entries lodged in excess of 20 percent, and Applier and C.I. 6729 averaged in excess of 40 percent lodging in 1952-53.

Date Headed

A total of 17 stations reported on date of heading. Oats headed earliest at College Station, Texas; Gainesville, Florida; and Tifton, Georgia. They headed latest at Hopkinsville, Kentucky. On the average, the earliest entry in 1953 was C.I. 6730, which headed March 28; whereas Delair, usually the earliest, headed April 6 and Floriland headed April 5. The latest heading entries in 1953 were C.I. No's. 6729, 5872, 6582, 6583, and 6717. All headed April 23 on the average, or nearly four weeks later than C.I. 6730. Possibly C.I. 6730, although apparently not widely adapted in the South, should be tested in areas where extreme earliness is a most desired character in an oat.

Date Ripe

In 1953 nine stations reported data on date of ripening of entries in the Uniform Fall Sown Oat Experiment. Oats ripened earliest at College Station, Texas, and latest at Beltsville, Maryland. On the average, the earliest maturing oats were among those first to head. The earliest oats to ripen in 1953 were Delair and C.I. 6730, which ripened on May 19 and 20, respectively; whereas the latest maturing entries in 1953 were C.I. No's. 6602, 6582, and 6732, which on the average ripened May 31. Most entries ripened during the period May 25 to 30.

Resistance to Disease

Data on crown rust infection were received from 12 stations. Infections were reported in several different ways. On the basis of percent of infection, Floriland was about the most resistant to crown rust of any entry, although the Local Check varieties and Nortex were reported not to be infected at most points. Among the most heavily infected entries was C.I. 5873.

Six stations reported infection by stem rust. All entries were reported infected at one or more points. Among the least infected was Alamo, which is a Hajira-Banner x (Victoria-Fulghum) derivative; whereas Delair was among the least resistant of all entries.

Data on smut infection were received from two points. The most susceptible entries were C.I. 6724 and Atlantic; whereas several entries, including Floriland and C.I. No's. 6729 and 5872, were not infected at either point.

Data on mosaic, or virus, were received from two points. No entries were entirely free of infection at Statesville. C.I. No's. 6724 and 6723, Floriland, Delair, C.I. 6582, Arlington, and Atlantic were least infected, and C.I. 6574 was most severely infected.

Infection by H. avenae was reported from three points in Alabama. No entries were considered resistant, although C.I. No's. 6574 and 6717 appeared most nearly free from damage. Data on H. victoriae from the same

three points indicated all entries were susceptible. These were unusually discouraging reports, as previously some of these entries were considered comparatively resistant to highly resistant to this disease. It might appear that some new race of H. victoriae had made its appearance in Alabama.

Data on downy mildew received from these three stations indicate some susceptibility in all but one entry, C.I. 6582, and all entries showed more or less susceptibility to septoria.

Forage Value and Type of Growth

Only eight stations reported on forage growth in the fall. As Winter killing was not severe at any point, forage growth was high on the average. The highest average fall rates, based on Appler equalling 100 percent, were recorded for Southland, C.I. No's. 6605, 6603, and Alamo, which averaged 119.0, 114.8, 114.6, and 114.4 percent, respectively. The lowest fall rating, 89.8 percent, was recorded for C.I. 6571.

Data on spring forage ratings were received from 14 stations. Most averages exceeded 100 percent. The highest averages were recorded for Southland, C.I. 6730, and Delair, which averaged 115.6, 115.3, and 115.0 percent, respectively. The lowest averages were recorded for C.I. No's. 6731, 6571, and 6717, which averaged only 89.8, 90.6, and 92.0 percent, respectively.

Data on growth type were received from six stations. As the winter was more mild than usual, oats tended to grow more upright than usual. The most decumbent growing entries in 1953 were C.I. No's. 6571, 6729, and 5872; whereas the most upright growing were Southland and C.I. 5371.

Table 53. Yields on stations where winters are severe of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 11 Stations	Fayetteville, Ark.	Athens, Ga.	Hopkinsville, Ky.	Beltsville, Md.	Stoneville, Miss.	Stoneville PSC Miss.	McCallers, N. C.	Stateville, N. C.	Plymouth, N. C.	Denton, Tex.	Warsaw, Va.
3531	Fultex	82.3	111.8	89.1	50.6	77.8	Bushe's 66.7	76.7	86.8	89.9	84.1	79.0	93.3
6724	Fultex x Santa Fe:Coker's 52-15	71.3	86.8	84.1	62.7	70.7	55.9	72.9	66.6	85.2	42.4	66.3	90.9
6723	Victorgrain 48.93:Coker's 153 B.R.S.	92.2	118.8	94.9	61.4	96.5	75.4	98.0	85.6	109.7	57.0	94.2	123.1
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	84.4	97.7	88.5	64.2	74.7	78.4	74.6	81.8	80.6	92.4	82.2	113.4
1815	Appler (check)	81.2	110.0	88.8	60.9	93.0	61.6	69.5	68.3	95.7	71.6	84.7	89.6
6588	Floriland:Fla. 167 x Landhafer	73.5	92.2	79.4	54.8	71.5	49.8	71.4	37.8	112.8	75.8	68.8	93.9
5207	Southland	93.5	109.5	78.1	51.9	101.5	78.7	90.8	98.0	96.6	122.3	77.7	123.6
4653	Delair	86.5	87.7	103.4	58.9	93.0	64.1	50.9	75.2	124.4	115.9	77.1	100.5
6730	(L-V x Fulwin x Colo) x C.I. 5393;Delta. Sta.	65.1	46.6	83.9	57.3	65.5	52.1	56.5	40.5	108.9	40.7	89.5	75.0
6574	(H-J x C.I. 4383-C.I. 4189) x Landhafer	75.0	115.3	86.7	69.7	82.2	72.3	62.0	63.3	62.5	42.2	77.4	91.9
5873	H-J x (Fulghum-Victoria):Ark.	85.1	118.6	103.4	64.8	98.5	76.0	70.2	82.8	67.2	61.5	71.5	122.0
5371	(Victoria x H-B)x(Fulgh.-Victoria):Alamo	86.3	121.5	103.6	53.4	94.7	73.0	74.3	79.3	90.1	42.4	90.7	125.8
6719	" " " " :Tex. 73-46-7	84.2	94.0	94.5	54.6	92.7	89.8	82.6	81.2	77.5	52.5	82.4	124.4
5372	(Red Rustproof x Victa.) x Norton;Ga. H842	83.5	94.5	91.9	62.8	78.5	84.1	77.4	78.7	90.9	81.1	91.8	86.8
6729	Nortex x Trelle Dwarf:Stoneville P.S.C. 41793	80.2	79.7	87.9	64.6	85.5	63.7	72.9	76.2	93.4	73.0	86.8	98.2
5872	Nortex:Stoneville P.S.C. 0112	76.7	71.8	95.8	59.2	88.2	67.2	76.0	58.4	89.7	71.3	84.9	81.6
---	Local check	81.5	88.3	93.5	49.9	85.2	72.8	84.9	73.0	88.4	101.8	89.7	68.7
6582	Trispermia x (Clinton ² x Santa Fe)	73.8	107.3	83.6	52.9	50.5	73.1	56.6	69.0	82.3	74.2	58.7	103.5
6603	Atlantic x (Clinton ² x Santa Fe)	72.2	76.4	66.5	49.3	75.0	64.6	60.5	70.5	89.3	67.1	63.1	112.2
6605	" "	84.1	112.6	66.3	44.9	92.6	64.7	59.0	84.2	88.6	115.2	75.8	121.0
6602	Latoria x (Clinton ² x Santa Fe)	74.3	74.7	85.3	73.0	75.0	71.3	75.0	69.5	72.2	46.6	74.5	100.2
6583	C.I. 4658 x (Clinton ² x Santa Fe)	85.9	98.3	86.9	54.3	88.0	84.4	60.5	84.9	100.6	108.1	81.7	97.1
4657	Arlington	89.4	91.5	84.5	59.2	90.6	78.8	76.5	80.7	105.8	115.6	80.0	119.8
4599	Atlantic	78.3	103.1	82.8	57.8	88.7	56.2	65.8	67.1	94.4	74.3	70.6	101.0
4660	Mustang	84.5	101.1	99.9	53.5	79.0	77.1	71.2	79.4	80.1	79.0	90.2	118.6
6571	(Lee-Victoria) x Fulwin;Tex. 3770-7	75.9	96.8	85.2	53.7	78.3	68.8	74.0	74.6	76.3	71.4	86.2	69.9
6717	" " " :Tex. 3770-1	79.2	111.8	96.0	52.1	84.7	73.6	69.9	77.3	53.2	94.0	84.0	74.8
3392	Latoria	79.1	84.0	90.0	64.6	77.7	70.6	77.1	83.0	79.6	89.0	69.4	85.1
1815	Appler	83.1	130.0	93.8	42.9	93.7	80.0	51.7	68.3	95.7	71.6	84.7	102.2
3855	Stanton 1	77.2	76.4	85.6	52.7	88.7	68.7	76.6	68.4	84.0	70.5	78.2	99.6
3923	DeSoto	81.4	110.7	101.9	62.1	79.0	60.6	68.7	65.1	79.8	73.8	86.2	107.8
6731	Term. 090 x Bond;Tenn. 286-8	68.2	68.3	80.3	62.6	82.5	63.8	62.7	53.8	81.4	46.9	78.2	69.3
6732	" " :Tenn. 313-2	71.7	104.6	85.4	43.1	65.7	58.7	60.7	62.6	79.7	71.7	72.2	84.7

*L-V= Lee-Victoria; H-J = Hajira-Joanette; Victa. = Victoria; H-B = Hajira-Banner; Fulgh. = Fulghum

Table 54. Yields on stations where winters are mild of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 11 Stations	Belle Mina, Ala.	Camden, Ala.	Tallassee, Ala.	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Thomasville, Ga.	Pittton, Ga.	Baton Rouge, La.	St. Joseph, La.	Hartsville, S. C.
3531	Fultex	53.9	76.8	57.4	33.3	21.7	72.2	62.5	34.4	79.9	56.9	37.9	60.0
6724	Fultex x Santa Fe:Coker's 52-15	52.6	59.8	48.5	38.0	19.0	54.0	47.6	43.2	105.7	72.7	48.3	71.7
6723	Victorgrain 48-93:Coker's '53 B.R.S.	62.3	101.4	48.6	32.8	33.3	74.2	71.5	41.5	81.6	64.0	65.1	71.1
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	53.8	73.0	54.7	24.5	33.7	73.6	55.8	41.1	74.9	49.8	50.3	60.2
1815	Appler (check)	53.0	77.4	29.0	28.7	21.9	52.7	50.3	48.3	94.2	59.3	55.1	65.6
6588	Floriland:Fla. 167 x Landhafer	49.1	58.0	35.9	25.3	38.3	74.7	61.4	28.3	73.1	47.4	40.2	57.3
5207	Southland	52.9	105.8	14.6	28.3	33.4	50.0	53.4	38.9	88.0	40.3	57.3	72.0
4653	Delair	52.5	85.8	25.8	28.2	35.2	84.2	57.8	28.6	79.6	45.0	45.5	61.9
6730	(L-V x Fulwin x Colo)x C.I.5393:Delta Sta.	45.6	57.0	31.8	21.3	40.7	71.8	55.0	16.2	45.1	66.4	54.2	42.1
6574	(H-J x C.I.4383-C.I.4189)x Landhafer	45.0	52.2	39.5	14.5	36.2	44.2	48.1	40.1	71.9	59.3	38.1	46.7
5873	H-J x (Fulghum-Victoria):Ark.	51.7	108.6	41.2	16.1	35.3	48.4	55.3	38.9	79.3	54.5	52.5	42.4
5371	(Victoria x H-B)(Fulgh.-Victoria):Tex.73-44-90	56.9	98.9	31.0	26.2	44.0	95.7	86.1	34.5	55.3	47.4	35.8	71.4
6719	" " " " :Tex.73-46-7	59.0	104.4	59.0	17.2	25.7	61.3	75.9	40.4	95.4	42.7	60.4	66.2
5372	(Red Rustproof x Victa.)x Norton:Ca. H842	59.6	116.5	53.8	27.9	28.0	70.4	44.0	44.5	84.9	66.4	52.9	66.7
6729	Nortex x Trelle Dwarf:Stoneville P.S.C. 41793	51.3	81.4	35.1	10.0	16.5	59.6	51.7	50.1	91.4	54.5	50.1	63.4
5872	Nortex: Stoneville P.S.C. 0112	51.2	71.5	28.7	12.5	20.2	53.6	45.4	47.3	106.9	45.0	57.5	74.4
---	Local check	56.7	77.8	31.0	13.0	24.8	80.9	56.7	46.1	97.0	56.9	68.3	70.9
6582	Trispernia x (Clinton ² x Santa Fe)	46.8	82.0	52.1	27.2	32.0	47.8	36.3	39.1	61.4	42.7	26.7	67.5
6603	Atlantic x (Clinton ² x Santa Fe)	44.8	58.0	42.3	35.0	25.0	49.1	45.1	40.3	63.7	42.7	44.0	47.7
6605	" "	46.1	80.0	45.2	34.4	30.3	58.2	52.8	35.1	55.7	45.0	30.5	40.0
6602	Latoria x (Clinton ² x Santa Fe)	50.3	78.6	28.7	33.2	11.3	58.5	56.4	35.1	70.7	52.1	61.9	66.4
6583	C.I. 4658 x (Clinton ² x Santa Fe)	46.9	85.7	36.1	15.0	15.1	50.2	43.7	37.1	75.8	35.6	46.2	75.2
4657	Arlington	51.7	71.6	39.3	27.6	12.5	49.0	61.3	37.4	80.8	61.6	60.6	67.4
4599	Atlantic	48.6	62.6	40.5	19.8	6.3	61.4	55.6	35.1	71.8	52.1	69.6	59.8
4660	Mustang	52.1	108.4	44.1	20.5	12.8	61.9	47.3	43.0	82.1	54.5	41.1	57.8
6571	(Lee-Victoria)x Fulwin:Tex. 3770-7	49.5	79.0	51.7	22.2	10.7	72.1	47.6	43.6	83.2	61.6	39.1	33.7
6717	" " :Tex. 3770-1	50.4	76.6	47.9	25.8	6.4	65.1	47.3	39.8	76.9	68.7	32.1	68.2
3392	Latoria	51.2	80.2	36.8	17.4	7.2	54.7	45.4	42.8	81.8	54.5	72.6	69.4
1815	Appler	51.2	70.5	36.0	19.4	13.0	54.4	47.6	55.3	84.6	73.5	58.1	70.6
3923	Stanton 1	53.5	96.5	48.7	18.6	9.1	63.0	47.3	40.5	74.6	64.0	59.3	67.0
6731	DeSoto	55.1	111.4	50.6	26.3	14.5	67.2	36.6	40.8	76.9	45.0	60.2	76.7
6732	Tenn. 090 x Bond:Tenn. 286-8	41.4	77.6	20.9	17.8	1/1	40.1	2/2	22.8	41.3	52.1	55.9	50.5
6732	" " :Tenn. 313-2	46.5	89.2	40.9	26.8	1/1	50.0	2/2	34.9	75.7	23.7	48.5	45.8

1/ Average of station, 23.0, substituted for missing data.

Average of station, 53.2, substituted for missing data.

L-V-Lee-Victoria; H-J = Hajira-Joanette; Victa. = Victoria; H-B = Hajira-Banner; Fulgh. = Fulghum

Table 56. Dates of heading on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 17 Stations	Fayetteville, Ark.	Stuttgart, Ark.	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Athens, Ga.	Experiment, Ga.	Tifton, Ga.	Hopkinsville, Ky.	St. Joseph, La.	Beltzville, Md.	Stoneville, Miss.	Stoneville P.S.C. Miss.	McCullers, N. C.	Hartsville, S. C.	College Station, Tex.	Denton, Tex.
3531	Fultex	4/14	4/28	4/17	3/22	4/11	4/2	4/29	4/8	3/28	5/10	4/4	5/7	4/17	4/13	4/12	4/19	3/24	4/14
6724	Fultex x Santa Fe:Coker's 52-15	16	28	17	22	13	8	27	16	28	3	7	8	18	19	15	24	27	22
6723	Victorgrain 48-93:Coker's '53 B.R.S.	11	17	3/28	20	11	2	20	5	25	4/30	1	4	17	13	19	20	24	14
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	8	17	23	13	10	3/30	22	3/31	20	5/1	3/29	6	14	12	6	20	29	15
1815	Appler (check)	21	18	4/16	4/5	21	4/16	28	4/23	4/7	7	4/7	9	28	9	18	5/1	4/1	24
6588	Floriland; Fla. 167 x Landhafer	5	17	3/20	3/8	1	3/27	19	3/30	3/16	4/29	3/27	6	9	9	5	4/17	3/20	14
5207	Southland	13	20	4/1	14	11	4/4	27	4/6	23	5/4	4/5	8	17	18	12	24	28	24
4653	Delair	6	9	3/30	10	7	3/28	15	3	22	4/29	3/27	3	6	8	2	15	25	12
6730	(L-V x Fulwin x Colo) x C.I. 5393:Delta. Sta.	3/28	1	11	5	3/25	21	10	3/15	1	20	4/5	4/27	1	7	3/20	14	19	7
6574	(H-J x C.I. 4383-C.I. 4189) x Landhafer	4/20	28	4/20	24	4/15	4/15	28	4/22	4/7	5/8	3/27	5/10	28	22	4/26	5/1	30	26
5873	H-J x (Fulghum-Victoria):Ark.	19	28	21	21	21	15	5/1	5	3/30	9	18	11	28	25	20	3	4/5	26
5371	(Victoria x H-B) x (Fulgh.-Victoria):Alamo	8	17	3/30	11	4	3/31	4/21	1	22	4/29	4/1	4	12	11	3	4/17	3/23	13
6719	" " " " :Tex. 73-46-7	20	28	4/22	21	15	4/12	30	16	4/5	5/9	7	11	28	28	18	5/1	4/5	25
5372	(Red Rustproof x Victoria) x Norton:Ga. H842	19	28	19	22	15	15	28	28	1	6	7	8	27	18	15	1	3/31	18
6729	Nortex x Trelle Dwarf:Stoneville P.S.C. 41793	23	28	22	4/5	21	17	30	23	11	7	15	9	29	22	23	1	4/2	25
5872	Nortex:Stoneville P.S.C. 0112	23	28	21	5	21	17	29	23	11	7	14	10	29	23	25	1	3/31	24
---	Local check	18	28	1/3	24	3/29	3/21	29	23	11	9	15	11	29	25	19	4/20	4/1	24
6582	Trispermia x (Clinton ² x Santa Fe)	23	28	17	20	4/24	4/20	5/2	23	3/30	11	17	12	5/1	28	22	5/4	3	30
6603	Atlantic x (Clinton ² x Santa Fe)	15	26	23	9	11	6	4/29	2	25	8	7	7	4/25	22	10	4/24	3/31	22
6605	" "	18	26	5	21	13	13	29	23	4/9	11	6	11	23	20	21	28	31	21
6602	Latoria x (Clinton ² x Santa Fe)	22	5/1	15	23	21	11	5/1	23	7	9	15	14	27	23	24	5/3	4/6	25
6583	C.I. 4658 x (Clinton ² x Santa Fe)	23	4/29	26	4/7	18	17	4/30	24	14	9	17	10	26	21	26	4/24	5	21
4657	Arlington	17	26	26	3/25	11	10	26	12	1	1	7	6	20	17	14	24	3/28	21
4599	Atlantic	16	26	17	26	11	8	25	12	3/30	2	7	6	18	15	14	24	30	13
4660	Mustang	15	26	6	24	11	8	27	16	28	2	7	8	21	16	16	24	29	21
6571	(Lee-Victoria) x Fulwin:Tex. 3770-7	21	5/7	7	25	15	12	5/1	27	4/5	10	16	12	27	22	24	24	31	23
6717	" " :Tex. 3770-1	23	5	25	30	15	13	1	27	5	9	16	12	27	24	25	5/3	31	24
3392	Latoria	21	4/26	23	4/6	15	13	4/29	22	9	6	15	8	26	17	16	1	4/1	1
3921	Appler	21	28	15	5	21	16	28	23	9	11	7	7	22	23	18	1	1	24
3855	Stanton 1	18	28	12	6	11	14	27	22	11	8	3/24	7	22	21	17	4/24	3/28	16
3923	DeSoto	19	30	16	1	13	13	29	16	1	7	4/1	10	25	21	17	5/1	4/1	25
6731	Tenn. 090 x Bond:Tenn. 286-8	21	30	1/2	2/2	22	3/3	30	28	16	8	10	10	29	24	19	4/30	3/29	21
6732	" " :Tenn. 313-2	21	17	1/2	2/2	15	3/3	5/2	29	16	13	10	12	5/3	23	18	5/1	4/4	22

1/	Average of station, 4/12, substituted for missing data.
2/	Average of station, 3/24, substituted for missing data.
3/	Average of station, 4/9, substituted for missing data.

*L-V=Lee-Victoria; H-J = Hajira-Joanette; Victa. = Victoria; H-B = Hajira-Banner; Fulgh. = Fulghum

Table 59. Dates of ripening on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 9 Stations	Belle Mina, Ala.	Tallassee, Ala.	Hopkinsville, Ky.	Baton Rouge, La.	Beltsville, Md.	Stoneville, Miss.	Stoneville P.S.C., Miss.	College Station, Tex.	Denton, Tex.
3531	Fultex	5/22	6/4	5/20	6/10	4/30	6/10	5/15	5/23	4/28	5/22
6724	Fultex x Santa Fe; Coker's 52-15	26	5	28	10	5/4	11	19	27	30	31
6723	Victorgrain 48-93; Coker's '53 B.R.S.	22	4	25	4	1	10	19	22	27	21
6725	Santa Fe x (Stanton-Fulgrain); Coker's 52-22	27	6	30	10	1	15	27	29	5/1	29
1815	Appler (check)	27	4	30	10	1	13	25	29	6	31
6588	Floriland; Fla. 167 x Landhafer	22	4	26	4	4/28	11	17	20	4/25	26
5207	Southland	24	4	6/1	4	28	11	15	24	5/1	30
4653	Delair	19	4	5/18	4	28	9	11	11	4/29	24
6730	(Lee-Victa. x Fulwin x Colo) x C.I. 5393; Delta Sta.	20	4	28	4	28	9	9	20	5/2	20
6574	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	29	5	6/1	10	5/15	14	27	30	9	6/1
5873	Hajira-Joanette x (Fulghum-Victoria); Ark.	30	5	1	10	12	15	26	30	4/29	1
5371	(Victa. x Hajira-Banner) x (Fulghum-Victa.); Alamo	23	4	5/24	4	1	10	21	22	5/9	5/25
6719	" " " : Tex. 73-46-7	29	5	6/1	10	14	14	25	29	5/9	30
5372	(Red Rustproof x Victoria) x Norton; Ga. H842	26	4	1	4	10	11	21	25	3	30
6729	Nortex x Trelle Dwarf; Stoneville P.S.C. 41793	29	5	5/30	10	15	13	25	28	7	30
5872	Nortex; Stoneville P.S.C. 0112	28	4	30	10	15	13	25	29	1	30
---	Local check	30	5	6/4	10	17	14	25	30	4	31
6582	Trispernia x (Clinton ² x Santa Fe)	31	6	1	10	20	14	6/1	6/1	8	6/1
6603	Atlantic x (Clinton ² x Santa Fe)	29	5	1	10	17	13	5/27	5/29	2	5/29
6605	" "	26	5	5/30	4	12	13	22	24	3	26
6602	Latoria x (Clinton ² x Santa Fe)	31	6	6/1	10	16	14	30	30	10	30
6583	C.I. 4658 x (Clinton ² x Santa Fe)	30	6	1	10	18	13	30	29	10	29
4657	Arlington	25	4	5/27	4	10	11	22	24	1	26
4599	Atlantic	26	6	27	4	12	10	22	28	3	25
4660	Mustang	27	5	30	10	10	14	22	26	3	24
6571	(Lee-Victoria) x Fulwin; Tex. 3770-7	29	9	6/1	10	10	15	26	30	4	30
6717	" " " : Tex. 3770-1	29	6	1	10	12	15	27	31	4	30
3392	Letoria	29	6	1	10	12	15	24	28	5	30
1815	Appler	28	4	4	10	10	9	25	29	4	31
3855	Stanton 1	26	4	1	10	8	12	22	27	1	25
3923	DeSoto	28	6	1	10	8	14	26	29	3	31
6731	Tenn. 090 x Bond; Tenn. 286-8	28	4	1	10	12	14	27	29	1	26
6732	" " " : Tenn. 313-2	31	5	1	10	15	16	6/1	30	9	31

*Victa. = Victoria:

Table 60. Reactions to Crown Rust on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

CROWN RUST 1/

C.I. No.	Variety or Selection	Belle Mina, Ale.	Camden, Ale.	Tallassee, Ale.	Fayetteville, Ark.	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Tifton, Ga.	Stoneville, Miss.	Hartsville, S. C.	College Station, Tex.	Denton, Tex.
		Rct.	Rct.	Rct.	Rct.	o/o React.	o/o React.	o/o React.	o/o React.	Type	Sev.	o/o	Rct.
3531	Fultex	R	R	MS	T	40	T-10	T-60	T	0	0	T	R
6724	Fultex x Santa Fe:Coker's 52-15	R	R	MS	T	10-60	10	T-10	T	0	0	T	R
6723	Victorgrain 48-93;Coker's '53 B.R.S.	SS	R	S	T	40	20	20-40	T	1	10	T	R
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	MS	R	MS	T	40-60	50	R-CS	T	1-4	5-30	90	S
1815	Appler (check)	SS	R	SS	5	T-50	T	T-10	T	x	10	T	R
6588	Floriland;Fla. 167 x Landhafer	R	R	SS	T	T	T	T	T	0	0	T	R
5207	Southland	R	R	MS	T	50	30	I-CS	5-20	0	0	T	R
4653	Delair	R	MS	SS	T	80	20	I-CS	10-20	1	70	65	S
6730	(L-V x Fulwin x Colo)x C.I. 5393;Delta Sta.	R	SS	MS	T	90	-	40-60	20	4	50	80	S
6574	(H-J x C.I. 4383-C.I. 4189) x Landhafer	R	SS	MS	T	T	T	T-10	T	0	0	T	R
5873	H-J x (Fulghum-Victoria):Ark.	SS	R	R	T	10-30	20	R-CS	10-40	4	60	T	R
5371	(Victoria x H-B)x(Fulgh.-Victoria.):Alamo	SS	R	MS	T	20-40	10-30	R-CS	T	1	0	T	R
6719	" " " " :Tex. 73-46-7	SS	R	MS	T	20-40	10-30	R-CS	T	1	0	T	R
5372	(Red Rustproof x Victa.)x Norton:Ga. H842	SS	R	MS	10	10-30	30	I-S	T	4	90	35	S
6729	Nortex x Trelle Dwarf:S.P.S.C. 41793	SS	R	SS	10	T-20	T	R-S	T	x	5	T	R
5872	Nortex:Stoneville P.S.C. 0112	R	R	SS	T	T	T-10	R-S	T	x	5	T	R
	Local check	SS	R	MS	T+	T-20	T	R	T	x	10	T	R
6582	Trispertia x (Clinton ² x Santa Fe)	R	R	R	T	T-30	T	R-I	T	1	10	T	R
6603	Atlantic x (Clinton ² x Santa Fe)	SS	SS	MS	T	10-50	10-20	R-CS	T-20	0	0	T	R
6605	" "	R	R	MS	T	20-40	20	R-S	T-20	0	0	65	S
6602	Latoria x (Clinton ² x Santa Fe)	R	R	MS	T	30-50	T	R-I	T-10	0	0	15	MS
6583	C.I. 4658 x (Clinton ² x Santa Fe)	R	R	MS	T	20-50	30	R-CS	T-10	0	0	20	MS
4657	Arlington	R	R	MS	T	40-80	40	CS	T-20	0	0	40	S
4599	Atlantic	SS	R	S	T	40-60	40	I-CS	T-20	1	10	10	MR
4650	Mustang	SS	R	S	T	30-80	40	R-S	T-10	1	5	10	SR
6571	(Lee-Victoria)x Fulwin:Tex. 3770-7	SS	R	MS	T	20-40	30	R-CS	T	1	10	10	MR
6717	" " :Tex. 3770-1	SS	R	MS	T	20-40	10-30	I-CS	T	1	10	65	MR
3392	Latoria	MS	R	S	T	20-40	T	R-CS	T	x	20	T	R
1815	Appler	SS	R	S	T	20-40	T	R-S	T-10	1	5	10	SR
3855	Stanton 1	SS	R	S	T	20-40	T	R-CS	T	1	10	35	MR
3923	DeSoto	SS	R	MS	T	20-60	10-30	I-CS	T-20	1	5	0	S
6731	Tenn. 090 x Bond: Tenn. 286-8	SS	R	MS	T	-	20	R-S	T-40	0	0	65	S
6732	" " :Tenn. 313-2	MS	R	SS	T+	-	60	CS	T-40	0	0	30	S

L-V=Lee-Victoria; H-J = Hajira-Joanette; Victa. = Victoria; H-B = Hajira-Banner; Fulgh. = Fulghum

1/ R=Resistant; S = Susceptible; I = Intermediate; SS = Slightly susceptible; MS = Moderately susceptible; CS = Completely susceptible

T = Trace

Table 61. Reactions to diseases on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	STEM RUST I						SMUT		MOSAIC		
		Camden, Ala.	Gainesville, Fla.	Quincy, Fla.	Stoneville P.S.C. Miss.	College Station, Tex.	Denton, Tex.	Gainesville, Fla.	McCullers, N. C.	Experiment, Ga.	Statesville, N. C.	
		Rct.	React.	Rct.	React.	Rct.	React.	o/o	o/o	o/o	Rct. o/o	
3531	Fultex	R	I-S	S	S-CS	15	S	3	5	55	L	30
6724	Fultex x Santa Fe: Coker's 52-15	R	R-I	I-S	S	15	S	5	75	85	0	10
6723	Victorgrain 48-93; Coker's '53 B.R.S.	R	I-S	CS	CS	60	CS	8	0	1	L	8
6725	Santa Fe x (Stanton-Fulgrain): Coker's 52-22	R	CS	CS	CS	60	CS	18	0	5	S	25
1815	Appler (check)	R	CS	I-S	CS	85	CS	6	0	28	0	20
6588	Floriland; Fla. 167 x Landhafer	R	CS	CS	S-CS	90	S	18	0	0	L	10
5207	Southland	R	CS	I-S	S-CS	85	S	8	43	18	L	10
4653	Delair	MS	S	CS	CS	75	S	3	0	4	L	5
6730	(Lee-Victoria x Fulwin x Colo) x C.I. 5393: Delta Sta.	SS	-	S	HR	85	S	0	0	6	L	15
6574	Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	R	R	R	CS-HR	O-90	S	0	0	10	VS	90
5873	Hajira-Joanette x (Fulghum-Victoria): Ark.	R	R	R	R	40	S	0	0	30	S	75
5371	(Victoria x Hajira-Banner) x (Fulgh-Victa): Alamo	R	R-I	R-I	HR	5	R	0	0	75	S	70
6719	" " " " : Tex. 73-46-7	R	R-I	R-I	HR	T	R	0	0	15	S	90
5372	(Red Rustproof x Victoria) x Norton: Ga. H842	R	I-S	I-S	CS	60	S	0	0	3	S	75
6729	Nortex x Trelle Dwarf: Stoneville P.S.C. 41793	R	I	S	CS	40	S	3	0	0	S	15
5872	Nortex: Stoneville P.S.C. 0112	R	I-S	S	S-CS	60	S	3	0	0	S	20
	Local check	R	CS	CS	CS	55	S	3	33	85	0	25
6582	Trispornia x (Clinton ₂ x Santa Fe)	R	CS	CS	CS	60	S	0	0	30	S	5
6603	Atlantic x (Clinton ₂ x Santa Fe)	R	I	R-I	CS	40	S	3	44	0	S	50
6605	" "	MS	I	R-I	CS	30	S	3	76	0	S	25
6602	Latoria x (Clinton ₂ x Santa Fe)	MS	R-I	I-S	CS	25	S	T	13	30	S	70
6583	C.I. 4658 x (Clinton ₂ x Santa Fe)	R	-	R-I	CS	25	MS	5	10	60	S	10
4657	Arlington	R	CS	S	CS	75	S	T	0	3	0	8
4599	Atlantic	R	CS	I-S	CS	60	S	3	68	85	0	5
4660	Mustang	R	CS	S	CS	35	S	T	50	40	S	70
6571	(Lee-Victoria) x Fulwin: Tex. 3770-7	R	S	S	CS	30	S	5	0	50	S	50
6717	" " : Tex. 3770-1	R	S	S	CS	30	S	T	0	45	S	70
3392	Latoria	R	S	S	CS	50	S	8	50	75	S	20
1815	Appler	R	S	I	CS	85	S	6	0	28	S	75
3855	Stanton 1	R	I-S	I	CS	50	S	3	0	65	S	40
3923	DeSoto	R	CS	-	CS	25	S	B	0	75	0	60
6731	Tenn. 090 x Bond: Tenn. 286-8	R	-	-	CS	55	S	13	-	30	0	60
6732	" " : Tenn. 313-2	R	-	-	CS	55	S	13	-	0	0	60

Fulgh = Fulghum; Victa = Victoria
MS = Moderately susceptible; VS = Very susceptible; I = Intermediate; S = Susceptible; SS = Slightly susceptible;
T = Trace
1/ R = Resistant; I = Intermediate; S = Susceptible; SS = Slightly susceptible;
MS = Moderately susceptible; VS = Very susceptible; CS = Completely susceptible; HR = Highly resistant; L = Light
T = Trace

Table 62. Reactions to diseases on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	H. AVENAE Ala. Camden, Belle Mine,	Tallassee, Ala.	Belle Mine, Ala.	Camden, Ala.	Tallassee, Ala.	H. VICTORIAE Ala. Camden, Belle Mine,	Tallassee, Ala.	Belle Mine, Ala.	Camden, Ala.	Tallassee, Ala.	DOWNY MILDEW	Belle Mine, Ala.	Camden, Ala.	Tallassee, Ala.	SEPTORIA
3531	Fultex	S	MS	S	MS	S	MS	S	MS	S	R	SS	MS	MS	MS	MS
6724	Fultex x Santa Fe; Coker's 52-15	S	MS	S	S	S	S	S	S	S	SS	SS	S	MS	MS	MS
6723	Victorgrain 48-93; Coker's '53 B.R.S.	S	S	MS	S	MS	S	MS	S	MS	R	R	MS	SS	SS	SS
6725	Santa Fe x (Stanton-Fulgrain); Coker's 52-22	S	MS	MS	S	MS	S	MS	S	MS	R	R	MS	SS	SS	SS
1815	Appler (Check)	S	S	S	S	S	S	S	S	S	SS	SS	S	MS	MS	MS
6588	Floriland; Fla. 167 x Lendhafer	S	MS	VS	S	MS	S	MS	S	MS	SS	SS	MS	SS	SS	MS
5207	Southland	S	S	MS	S	MS	S	S	S	S	SS	SS	S	MS	MS	SS
4653	Delair	S	MS	S	S	S	MS	S	MS	S	SS	SS	MS	MS	MS	SS
6730	(Lee-Victoria x Fulwin x Colo) x C.I. 5393; Delta Sta.	S	MS	S	MS	S	MS	S	MS	S	SS	SS	MS	MS	MS	MS
6574	Hajira-Joanette x C.I. 4383-C.I. 4189) x Lendhafer	MS	MS	MS	MS	MS	SS	SS	SS	SS	R	R	SS	MS	MS	MS
5873	Hajira-Joanette x (Fulghum-Victoria); Ark.	S	S	S	S	S	SS	SS	SS	SS	SS	SS	SS	SS	SS	MS
5371	(Victa. x Hajira-Banner) x (Fulghum-Victa.); Alamo	S	MS	S	S	S	SS	SS	SS	SS	R	R	SS	MS	MS	R
6719	" " " " " " ; Tex. 73-46-7	MS	S	MS	S	MS	SS	SS	SS	SS	R	R	SS	MS	MS	SS
5372	(Red Rustproof x Victoria) x Norton; Ga. H842	S	S	S	MS	S	MS	MS	MS	MS	R	R	SS	MS	MS	SS
6729	Nortex x Trelle Dwarf; Stoneville P.S.C. 41793	S	S	S	S	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	SS
5872	Nortex; Stoneville P.S.C. 0112	MS	MS	S	S	S	MS	MS	MS	MS	R	R	SS	SS	SS	SS
6582	Local check	S	S	S	S	S	S	S	S	S	SS	SS	MS	S	MS	SS
6603	Trispermia x (Clinton ₂ x Santa Fe)	MS	S	MS	S	MS	SS	SS	SS	SS	R	R	SS	MS	MS	SS
6605	Atlantic x (Clinton ₂ x Santa Fe)	S	S	S	S	S	S	S	S	S	SS	SS	MS	MS	MS	MS
6606	" "	MS	S	MS	S	MS	SS	SS	SS	SS	R	R	SS	MS	MS	MS
6602	Latoria x (Clinton ₂ x Santa Fe)	MS	S	S	MS	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
6583	C.I. 4658 x (Clinton ₂ x Santa Fe)	MS	S	S	S	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
4657	Arlington	MS	MS	S	S	S	MS	MS	MS	MS	R	R	SS	MS	MS	MS
4599	Atlantic	S	S	MS	S	MS	S	MS	S	S	SS	SS	MS	MS	MS	MS
4660	Mustang	S	MS	S	S	S	S	S	S	S	SS	SS	MS	MS	MS	MS
6571	(Lee-Victoria) x Fulwin; Tex. 3770-7	MS	MS	S	S	S	MS	MS	MS	MS	R	R	S	MS	MS	MS
6717	" " " " " " ; Tex. 3770-1	MS	MS	MS	MS	MS	SS	SS	SS	SS	SS	SS	MS	MS	MS	SS
3392	Latoria	MS	MS	MS	MS	MS	SS	SS	SS	SS	SS	SS	MS	MS	MS	MS
1815	Appler	MS	S	S	S	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
3855	Stanton 1	MS	S	S	S	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
3923	DeSoto	S	S	MS	S	MS	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
6731	Tenn. 090 x Bond; Tenn. 286-8	MS	MS	S	S	S	MS	MS	MS	MS	SS	SS	MS	MS	MS	MS
6732	" " " " " " ; Tenn. 313-2	S	VS	MS	S	MS	SS	SS	SS	SS	R	R	SS	SS	SS	S

1/ R = Resistant; S = Susceptible; MS = Moderately susceptible; SS = Slightly susceptible; VS = Very susceptible

* Victa. = Victoria.

Table 63 Estimates of forage growth in the Fall on stations reporting of varieties and hybrid selections included in the Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 8 Stations	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Baton Rouge, La.	St. Joseph, La.	Beltsville, Md.	McCullers, N. C.	College Station, Tex.
3531	Fultex	107.0	102	110	100	101	105	108	125	105
6724	Fultex x Santa Fe:Coker's 52-15	110.1	105	110	113	102	108	107	131	105
6723	Victorgrain 48-93:Coker's '53 B.R.S.	109.3	108	115	113	100	110	100	125	103
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	108.9	108	115	108	102	108	105	125	100
1815	Appler (check)	100.0	100	100	100	100	100	100	100	100
6588	Floriland;Fla. 167 x Landhafer	107.3	113	110	117	101	105	104	118	100
5207	Southland	119.0	116	115	133	104	110	128	131	100
4653	Delair	109.9	109	110	112	96	105	118	125	104
6730	(L-V x Fulwin x Colo) x C.I. 5393:Delta. Sta.	111.9	110	110	120	103	110	112	125	105
6574	Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	103.4	105	105	110	95	102	115	100	95
5873	Hajira-Joanette x (Fulghum-Victoria):Ark.	106.0	108	105	108	100	110	109	113	95
5371	(Victoria x Hajira-Banner) x (Fulgh-Victa):Alamo	114.4	112	115	120	102	105	115	131	115
6719	" " " :Tex. 73-46-7	111.8	109	115	118	96	105	110	131	110
5372	(Red Rustproof x Victoria) x Norton:Ga. H842	101.1	100	100	92	96	102	101	118	100
6729	Nortex x Trelle Dwarf:Stoneville P.S.C. 41793	99.8	100	95	93	90	105	102	113	100
5872	Nortex:Stoneville P.S.G. 0112	92.5	100	100	90	70	85	95	100	100
-----	Local check	112.4	107	115	138	110	110	106	113	100
6582	Trispermia x (Clinton ² x Santa Fe)	104.5	108	110	105	80	95	103	125	110
6603	Atlantic x (Clinton ² x Santa Fe)	114.6	116	120	112	105	115	113	131	105
6605	" "	114.8	118	115	122	103	110	104	131	115
6602	Latoria x (Clinton ² x Santa Fe)	108.6	108	110	122	100	110	96	118	105
6583	C.I. 4658 x (Clinton ² x Santa Fe)	105.0	102	110	110	102	108	103	100	105
4657	Arlington	106.6	104	110	105	103	100	106	125	100
4599	Atlantic	104.1	104	110	103	98	95	110	113	100
4660	Mustang	93.3	100	105	83	80	80	104	94	100
6571	(Lee-Victoria) x Fulwin: Tex. 3770-7	89.8	100	105	85	70	75	100	88	95
6717	" " : Tex. 3770-1	97.3	101	95	95	90	100	102	100	95
3392	Latoria	99.5	103	100	103	92	85	100	113	100
1815	Appler	100.0	100	100	100	100	100	100	100	100
3855	Stanton 1	97.3	98	100	102	85	95	103	100	95
3923	DeSoto	104.4	102	105	112	90	102	101	113	110
6731	Tenn. 090 x Bond: Tenn. 286-8	96.4	111	90	21/2	70	80	104	113	100
6732	" " : Tenn. 313-2	94.1	111	90	21/2	70	80	99	100	100

1/ Average of station, 106, substituted for missing data.

\bar{Z} / Average of station, 108, substituted for missing data.
L-V = Lea-Victoria; Fulgh = Fulghum; Victa = Victoria

L-V = Lea-Victoria; Fulgh = Fulghum; Victa = Victoria

Table 64. Estimates of forage growth in the Spring on stations reporting of varieties and hybrid selections included in the Uniform Fall Sown Oat Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 14 Stations	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Experiment, Ga.	Tifton, Ga.	Baton Rouge, La.	St. Joseph, La.	Beltsville, Md.	Stoneville, Miss.	N. C., Stateville,	McCallers, N. C.	Hartsville, S. C.	College Station, Tex.	Denton, Tex.
3531	Fultex	109.5	106	115	110	115	110	103	110	98	113	113	111	115	110	105
6724	Fultex x Santa Fe;Coker's 52-15	108.2	110	105	108	105	105	100	110	96	116	113	117	120	110	100
6723	Victorgrain 48-93;Coker's '53 B.R.S.	108.7	120	110	117	105	105	104	112	94	109	100	117	110	110	110
6725	Santa Fe x (Stanton-Fulgrain):Coker's 52-22	106.9	120	110	115	100	105	105	112	91	110	103	111	110	110	95
1815	Appler (check)	100.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100
6588	Floriland;Fla. 167 x Lendhafer	109.1	124	115	128	105	105	105	112	98	117	108	111	110	110	100
5207	Southland	115.6	124	115	133	125	120	105	112	90	118	130	122	120	115	90
4653	Delair	115.0	112	120	117	105	110	98	110	115	125	125	139	125	105	105
6730	(L-V x Fulwin x Colo.) x Cl. 5393;Delta Sta.	115.3	114	120	133	105	105	100	112	114	120	118	144	115	110	105
6574	(H-J x C.I. 4383-C.I. 4189) x Lendhafer	100.0	116	100	103	100	105	97	102	104	96	90	78	105	100	105
5873	H-J x (Fulghum-Victoria):Ark.	102.9	104	105	112	100	105	100	110	99	107	100	94	105	105	95
5371	(Victoria x H-B) x (Fulgh.-Victoria):Alamo	110.7	118	120	118	105	110	100	110	97	119	118	111	115	115	95
6719	" " " " " " :Tex. 73-48-7	105.6	108	115	118	100	105	95	100	98	106	108	106	110	110	100
5372	(Red Rustproof x Victa.) x Norton;Ga. H842	98.2	106	100	95	95	95	97	100	93	94	90	100	100	105	105
6729	Nortex x Trelle Dwarf;S. P. S. C. 41793	96.0	100	100	92	95	100	90	100	98	85	95	94	90	100	105
5872	Nortex;Stoneville P.S.C. 0112	93.6	100	100	88	95	100	80	90	85	94	90	89	100	100	100
---	Local check	105.3	110	115	142	95	100	108	102	100	107	100	89	110	100	97
6582	Trispermia x (Clinton ² x Santa Fe)	101.6	110	110	100	105	105	90	100	90	104	93	106	110	105	95
6603	Atlantic x (Clinton ² x Santa Fe)	111.1	116	120	122	110	110	108	110	85	119	103	133	115	110	95
6605	" "	110.4	120	120	125	105	105	102	110	88	111	108	117	115	115	105
6602	Latoria x (Clinton ² x Santa Fe)	106.2	112	115	112	100	105	100	110	78	109	110	106	110	110	110
6583	C.I. 4658 x (Clinton ² x Santa Fe)	104.2	100	115	103	100	100	105	110	98	112	103	94	110	110	100
4657	Arlington	107.2	118	115	110	100	105	108	110	85	110	105	111	115	110	100
4599	Atlantic	106.9	114	120	105	100	105	103	105	94	107	103	111	115	115	100
4660	Mustang	100.7	100	115	98	85	95	98	105	110	102	95	93	105	105	105
6571	(Lee-Victoria) x Fulwin;Tex. 3770-7	90.6	104	110	98	85	95	90	100	75	65	85	72	90	100	100
6717	" " " " " " :Tex. 3770-1	92.0	106	95	103	80	95	98	102	75	72	90	83	85	100	105
3392	Latoria	98.9	108	100	107	90	100	95	100	95	103	98	89	100	105	95
1815	Appler	100.0	100	100	100	100	100	100	100	100	100	100	100	100	100	100
3855	Stanton 1	98.0	102	100	105	95	100	93	105	93	105	95	89	100	100	90
3923	DeSoto	105.6	110	105	112	100	105	95	105	88	119	105	100	115	115	105
6731	Tenn. 090 x Bond;Tenn. 286-8	89.8	1/1	85	2/2	90	100	80	85	84	60	85	78	90	95	105
6732	" " " " " " :Tenn. 313-2	94.0	1/1	100	2/2	80	100	80	90	82	86	100	78	95	105	100

1	Average of station, 110, substituted for missing data.
1	110
2	110
3	110
4	110
5	110
6	110
7	110
8	110
9	110
10	110
11	110
12	110
13	110
14	110
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88	110
89	110
90	110
91	110
92	110
93	110
94	110
95	110
96	110
97	110
98	110
99	110
100	110

23 Average of station, llll, substituted for missing data.

L^v-V=Lee-Victoria; H-J = Hajira-Joanette; Victa. = Victoria; H-B = Hajira-Banner; Fulgh. = Fulghum

Table 67.

Summary data obtained on the Uniform Fall Sown Oat Experiment grown on stations in the South in 1952-53.

Yield Rank	C.I. No.	Variety or Selection	Acre Yield		Ave. Surv. %	Test Wt. Lbs.	Plant Ht. Ins.	Lodging %	Date Headed	Forage Rating	
			North (11 Sta)	South (11 Sta)						Fall (8 Sta)	Spring (14 Sta)
1	5207	Southland	93.5	11	52.9	31.8	46.1	18.6	4/13	119.0	115.6
2	6723	Victorgrain	92.2	1	62.3	33.1	45.6	17.6	11	109.3	108.7
3	4657	Arlington	89.4	15	51.7	31.7	49.1	21.2	17	106.6	107.2
4	4653	Delair	86.5	13	52.5	34.0	46.2	16.0	16	109.9	115.0
5	5371	Alamo: (Victa x Haj-Banner)x(Fulghum-Victoria)	86.3	4	56.9	34.2	43.7	20.5	8	114.4	110.7
6	6583	C.I. 4658 x (Clinton ² -Santa Fe)	85.9	26	46.9	31.3	48.9	28.5	23	105.0	104.2
7	5873	Hajira-Joanette x (Fulghum-Victoria)	85.1	16	51.7	30.6	49.2	15.3	19	106.0	102.9
8	4660	Mustang	84.5	14	52.1	30.9	44.5	25.0	15	93.3	109.7
9	6725	Santa Fe x (Stanton-Fulgrain)	84.4	8	53.8	28.7	46.8	18.5	8	108.9	106.9
10	6719	(Victoria x Hajira-Banner)x(Fulghum-Victoria)	84.2	3	59.0	32.3	43.0	13.3	20	111.8	105.6
11	6605	Atlantic x (Clinton ² -Santa Fe)	84.1	29	46.1	31.8	52.6	25.5	18	114.8	110.4
12	5372	(Red Rustproof x Victoria) x Norton	83.5	2	59.6	28.0	40.9	32.0	19	101.1	98.2
13	1815	Appler (check)	83.1	19	51.2	28.7	45.7	37.7	21	100.0	100.0
14	3531	Fultex	82.3	7	53.9	31.9	40.6	27.3	14	107.0	109.5
15	----	Local check	81.5	5	56.7	31.0	46.6	39.8	18	112.4	105.3
16	3923	DeSoto	81.4	6	55.1	30.7	41.9	25.8	19	104.4	105.6
17	1815	Appler (check)	81.2	10	53.0	28.3	45.4	43.2	21	100.0	100.0
18	6729	Nortex x Trelle Dwarf	80.2	17	51.3	28.7	44.3	43.0	23	99.8	95.0
19	6717	(Lee-Victoria) x Fulwin:Tex. 3770-1	79.2	21	50.4	31.1	45.3	21.5	23	97.3	92.0
20	3392	Letoria	79.1	20	51.2	30.6	45.0	26.7	21	99.5	98.9
21	4599	Atlantic	78.3	25	48.6	30.9	49.1	34.4	16	104.1	106.9
22	3855	Stanton 1	77.2	9	53.5	31.2	45.4	29.4	18	97.3	98.0
23	5872	Nortex	76.7	18	51.2	28.8	44.0	30.0	23	92.5	93.6
24	6571	(Lee-Victoria) x Fulwin:Tex. 3770-7	75.9	23	49.5	31.1	46.7	22.7	21	89.8	90.6
25	6574	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	75.0	31	45.0	28.9	46.4	35.1	20	103.4	100.0
26	6602	Letoria x (Clinton ² -Santa Fe)	74.3	22	50.3	29.5	49.1	12.1	22	108.6	106.2
27	6582	Trispermia x (Clinton ² -Santa Fe)	73.8	27	46.8	30.2	48.6	26.2	23	104.5	101.6
28	6588	Floriland	73.5	24	49.1	30.8	48.4	19.0	5	107.3	109.1
29	6603	Atlantic x (Clinton ² -Santa Fe)	72.2	32	44.8	31.4	53.5	21.3	15	114.6	111.1
30	6732	Tenn. 090 x Bond:Tenn. 313 ²²	71.7	28	46.5	31.0	47.4	31.0	21	94.1	94.0
31	6724	Fultex x Santa Fe	71.3	12	52.6	28.4	44.8	42.6	16	110.1	108.2
32	6731	Tenn. 090 x Bond:Tenn. 286-8	68.2	33	41.4	30.1	47.5	20.2	21	96.4	89.8
33	6730	(Lee-Victoria x Fulwin x Colo) x C.I. 5393	65.1	30	45.6	32.5	44.7	30.8	3/28	111.9	115.3

1/ Rank in yield in the South. 2/ Rating based on Appler equalling 100 percent.

Florida-Gulf Coast Experiment

This nursery started in the fall of 1950 and has now been grown for three seasons. In the area where it is grown disease resistance and not hardiness is the primary consideration in an oat. Earliness is important, and most adapted entries are early maturing. The original objective for which this nursery was started was for testing oats in the area at a few points where rather complete reports could be obtained; hence, it was the intention of the original cooperators to resist more or less the experiment's becoming so extensive that entries would be limited because of excessive requirements of seed for sowing the tests.

In 1952-53 the Florida-Gulf Coast Experiment was seeded on a total of 15 stations. In addition, entries in this experiment were grown in observation or disease nurseries at five additional points. Stations cooperating in 1952-53 were as follows:

Ala.	Camden	Ga.	Thomasville
	Fairhope		Tifton
	Headland	La.	Baton Rouge
	Tallassee		Crowley
Fla.	Gainesville	Miss.	Poplarville
	Jay		Stoneville
	Live Oak	Tex.	College Station
	Quincy		

All entries were grown in disease or observation nurseries at Gainesville, Florida; Beltsville, Maryland (summer rust test); Aberdeen, Idaho; and Hartsville and Yemassee, South Carolina. As these entries were grown only in observation nurseries at the last two points, data (yield and forage value) from those nurseries were omitted this year as not being entirely comparable.

In 1953 the nursery included 23 entries. Of these Appller, Victorgrain, and Southland were included as checks. As in previous years, most of the entries were derivatives from Santa Fe or Landhafer; and in 1952-53 many of the entries had Hajira-Joanette strains included in their parentage. Data on this experiment are included in Tables 68 to 78 , inclusive.

Yield, Bushels per acre

Data on yield were averaged for only eight of the stations reporting data in 1953, compared with 11 for 1952. As data from several points were from only one or two replicates, they were omitted from averages. Several stations, notably College Station, Baton Rouge, Crowley, and Poplarville, did not report yields in 1953, usually due to destruction of the crop by high winds and excessive lodging making harvesting impossible and recording other data difficult. Data from the eight points indicate the highest-yielding entry in 1953 was C.I. 6744, (Victoria x Hajira-Joanette) x (Fulghum-Victoria):Tex. 4129-3-37. It averaged 65.8 bushels compared with 54.6 for Victorgrain, 53.7 for Southland, and 48.3 for Appller. The poorest

yielding entry was C.I. 5913 (Florida 167 x Landhafer), which averaged only 40.2 bushels. The new oats from Florida Sunland and Seminole averaged 48.8 and 53.5 bushels, respectively; and Floriland averaged 49.0 bushels in 1953.

Winter Hardiness

Winter hardiness is seldom a problem with oats in the area in which this experiment is conducted. No station reported any winterkilling in 1952-53, and several stations reported 100% survival of all entries--notably, Camden, Headland, and Tallassee, Alabama; Thomasville and Tifton, Georgia; and Stoneville, Mississippi.

Test Weight

Data on test weights were received from four stations. Most entries gave light tests at all stations reporting. Oats were heaviest at Stoneville, Mississippi, and lightest at Gainesville, Florida. The heaviest test weights were recorded for C.I. No's. 6754, 6757, and 6744. The former tested 32.3 pounds, and the others, 31.4 and 31.3, respectively. The lightest test weight, 22.4 pounds, was recorded for Appler.

Plant Height

Oats grew tall in the area in 1953, which partially accounts for the excessive lodging resulting in the loss of the crop on several stations. The tallest entry in 1953 was C.I. 5492, which averaged 53.4 inches on the seven stations reporting plant height. Appler averaged the shortest among named varieties, 43.1 inches, whereas the shortest entry in the test was C.I. 6755, which averaged only 41.4 inches, or some four inches shorter than Victorgrain.

Standing Ability

Reports on differentail standing ability were received from five points, although complete lodging was reported from several additional stations. The stiffest-strawed entry in 1953 was C.I. 5492, which was also the tallest entry. It lodged only 9 percent on the average, whereas a sister strain, C.I. 6629, lodged only 9.8 percent. C.I. 6599 lodged most, 86.6 percent; and Seminole, C.I. 5924, lodging only 42.6 percent, was the stiffest-strawed of the named oats.

Date Headed

Data on date of heading were received from six stations. On the average, Sunland and Seminole headed first. Both headed March 20, whereas C.I. No's. 5913 and 6726 headed latest, April 14 and 18, respectively.

Date Ripe

Reports on date ripe were received from six stations. All entries ripened in May. The earliest entries were C.I. 5913, Sunland, and C.I. 6599, which ripened May 9, 10, and 11, respectively. The last entry to ripen was 6629, which ripened May 26. As data on ripening were received from Tifton on only a part of the entries, such data were omitted from the average.

Resistance to Disease

Crown rust usually is the most prevalent and most destructive disease in oats in the Florida-Gulf Coast area. In 1953 reports were received from many points indicating the presence of crown rust. Data were not recorded in percents at most stations, but data received indicate that only Tallassee reported most entries susceptible or moderately so. The one entry termed resistant there was C.I. 6601. Other than at Tallassee, Sunland and C.I. 6666 were most resistant. It would appear that some race not present elsewhere was present at Tallassee.

Data on stem rust were reported from several points, although stem rust was not much of a problem in 1953 in this area. The most resistant entries, however, appeared to be C.I. No's. 6666, 6604, and 6629. Sunland was among the most susceptible entries in the test.

Many entries were free from smut. At Gainesville, Florida, the most susceptible entries were 6604, 6629, 5923, 6603, 6754, 6599, and Southland. All were reported to be smutted about 40 percent or more.

Forage Value and Type of Growth

Reports on forage readings in the fall were received from four stations. The most productive entries appeared to be C.I. No's. 6754, 6599, 6756, 6744, and Sunland, Seminole, and Southland. All averaged in excess of 115 percent of Appler check, considered 100 percent in these tests.

Six stations reported on forage in the spring. Sunland gave the highest average, 122.5 percent, followed by 6754, 122.0 percent of Appler, rated 100 percent in these nurseries.

Data on growth type were received from four stations. No entry was termed decumbent on all stations, and six were upright in all tests.

Table 68. Yields on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53

C.I. No.	Variety or Selection	Average 8 Stations	Camden, Ala.	1/ Fairhope, Ala.	1/ Headland, Ala.	Tallassee, Ala.	Gainesville, Fla.	Jay, Fla.	Live Oak, Fla.	Quincy, Fla.	Thomasville, Ga.	Tifton, Ga.	Stoneville, Miss.
Bushels													
5207	Southland	53.7	12.2	11.2	27.3	34.0	31.6	64.7	67.3	53.6	34.5	72.6	71.4
6588	Floriland	49.0	28.4	16.8	5.9	22.2	43.0	74.8	54.0	50.9	24.8	69.8	52.8
5913	Fla. 167 x Landhafer	40.2	23.4	35.5	8.2	12.9	36.3	76.0	34.0	58.0	20.5	38.4	45.5
6666	*(H-J x C.I. 4383-C.I. 4189) x Landhafer	51.4	37.0	9.7	9.5	16.5	35.0	52.6	34.2	60.2	40.5	97.0	75.5 ^{2/}
1815	Appler (check)	48.3	36.1	37.4	16.2	19.3	23.7	53.3	43.3	34.6	50.6	90.6	70.8 ^{2/}
5924	Appler x (Clinton ² -Santa Fe): Seminole	53.5	35.5	44.9	10.3	37.2	55.4	87.7	43.5	56.9	26.8	64.3	56.2
6726	Carolina Red x Landhafer: Coker's 52-49	43.7	25.4	34.8	7.3	10.4	14.6	54.2	35.1	37.4	39.0	89.4	69.5
6600	Fulghum x Landhafer: Sunland	48.8	31.8	52.4	8.2	26.4	44.6	79.0	39.1	62.7	20.7	64.0	54.1
5923	Wintok x (Clinton ² -Santa Fe)	48.3	30.9	7.5	8.1	24.9	45.8	71.1	52.5	56.1	19.6	59.8	56.9
6603	Atlantic x (Clinton ² -Santa Fe)	46.6	41.1	18.7	25.5	27.8	32.9	55.2	54.0	35.8	33.9	77.2	56.0
6604	"	50.6	79.7	31.8	21.6	32.7	31.0	55.9	62.3	40.7	37.2	78.8	65.8
6629	"	41.8	22.3	11.2	14.4	16.9	23.6	42.0	49.6	26.1	32.5	83.1	60.4
5492	"	46.7	50.9	23.4	27.1	32.5	23.4	42.7	54.2	31.7	28.8	86.6	73.8
6602	Letoria x (Clinton ² -Santa Fe)	40.4	35.5	7.5	14.6	23.6	14.2	52.4	14.0	40.7	38.8	71.3	68.1
5355	Victorgrain	57.2	68.1	26.2	37.7	30.6	33.5	72.1	54.3	71.8	39.5	75.6	80.4
6744	*(Victa. x H-J) x (Fulgh-Victa): Tex. 4129-3-37	65.8	53.5	24.3	47.3	37.9	43.8	94.3	51.8	89.9	42.9	90.7	74.7
6599	(Sac x Hajira-Joanette) x Fla. 167	46.1	40.6	22.8	25.2	12.8	41.3	47.5	56.8	41.8	39.8	79.3	49.8
6601	Trispernia x (Clinton ² -Santa Fe)	43.7	46.4	27.7	20.6	25.7	37.3	52.7	35.9	39.9	31.6	62.4	64.3
6754	Fla. 167 x (S.F.-Cl.: C.I. 4980): Fla. 846-6-8	46.5	48.6	24.3	31.1	33.9	42.7	70.4	48.3	37.7	22.4	57.1	59.8
6755	Trisp. x (Cl ² -S.F.) x (Atl. x Cl ² -S.F.): Q. 5694	46.7	18.0	32.5	22.3	21.0	30.2	55.2	42.8	59.7	30.5	79.6	54.8
6756	*(Atlantic x Clinton ² -Santa Fe) x H-J: Q. 11261	41.4	31.8	15.0	24.5	21.1	14.9	54.3	12.8	45.9	37.8	77.4	67.3
6757	*(Fla. 167 x Land.) x Southland: XM0609-4 Q. 5330	57.6	28.2	25.8	29.1	26.5	39.8	88.9	51.9	69.0	36.9	74.3	73.7
5930	Victorgrain x Landhafer: Miss. 54B	54.6	33.7	24.7	38.5	29.4	35.5	66.6	60.5	42.6	3/	4/	94.8

1/ Only one replicate was grown, so data was omitted from the average.

2/ Data on Appler is an average yield from another uniform nursery.

3/ Average of station, 33.2, substituted for missing data.

4/ Average of station, 74.5, substituted for missing data.

*H-J=Hajira-Joanette; Victa.= Victoria; Fulgh. = Fulghum; S.F. = Santa Fe; Cl. = Clinton; Trisp. = Trispernia; Atl. = Atlantic; and Land. = Landhafer

Table 69. Test weights on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 4 Stations	Gainesville, Fla.	Live Oak, Fla.	Quincy, Fla.	Stoneville, Miss.
			Pounds			
5207	Southland	30.0	23.0	34.0	30.0	33.0
5588	Floriland	28.4	28.0	25.5	30.0	30.0
5913	Fla. 167 x Landhafer	30.9	28.0	29.5	34.0	32.0
6666	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	23.3	17.0	25.0	22.0	29.0
1815	Appler (check)	22.4	18.0	23.5	17.0	1/
5924	Appler x (Clinton ² -Santa Fe): Seminole	29.3	27.5	27.0	31.5	31.0
6726	Carolina Red x Landhafer:Coker's 52-49	23.1	17.5	26.0	20.0	29.0
6600	Fulghum x Landhafer: Sunland	29.8	28.0	29.0	32.0	30.0
5923	Wintok x (Clinton ² -Santa Fe)	31.0	31.5	29.5	30.0	33.0
6603	Atlantic x (Clinton ² -Santa Fe)	28.1	27.0	30.5	26.0	29.0
6604	" "	27.6	22.0	32.5	23.0	33.0
6629	" "	24.8	20.0	29.0	18.0	32.0
5492	" "	24.3	18.5	29.5	19.0	30.0
6602	Letoria x (Clinton ² -Santa Fe)	24.5	20.0	25.0	24.0	29.0
5355	Victorgrain	30.9	28.0	32.0	31.5	32.0
6744	(Victa. x Haj-Joan) x (Fulghum-Victoria): Tex. 4129-3-37	31.3	28.0	31.0	32.0	34.0
6599	(Sac x Hajira-Joanette) x Fla. 167	29.8	28.5	28.5	32.0	30.0
6601	Trispermia x (Clinton ² -Santa Fe)	28.4	27.5	32.0	21.0	33.0
6754	Fla. 167 x (Santa Fe-Clinton: C.I. 4980): Fla. 846-6-8	32.3	32.0	32.0	32.0	33.0
6755	Trispermia x (Clinton ² -Santa Fe) x (Atl. x CL ² -S.F.): Q. 5694	29.9	26.0	31.5	30.0	32.0
6756	(Atlantic x Clinton ² -Santa Fe) x Hajira-Joanette: Q. 11261	24.6	21.5	23.0	24.0	30.0
6757	(Fla. 167 x Landhafer) x Southland: XM0609-4 Q. 5330	31.4	28.5	31.0	34.0	32.0
5930	Victorgrain x Landhafer: Miss. 54B	28.6	26.0	25.5	29.0	34.0

1/ Average of station, 31, was substituted for missing data.

Table 70. Plant heights on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 7 Stations	Camden, Ala.	Fairhope, Ala.	Headland, Ala.	Tallassee, Ala.	Gainesville, Fla.	Stoneville, Miss.	College Station, Tex.
					inches				
5207	Southland	44.6	51	60	10	60	44	48	39
6588	Floriland	46.9	50	60	24	62	44	50	38
5913	Fla. 167 x Landhafer	45.0	52	65	12	59	42	49	36
6666	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	44.0	48	55	15	59	45	51	35
1815	Appler (check)	43.1	47	50	14	58	42	47	40
5924	Appler x (Clinton ² -Santa Fe)	42.6	48	55	20	57	36	44	38
6726	Carolina Red x Landhafer; Coker's 52-49	46.3	50	50	21	64	47	55	37
6600	Fulghum x Landhafer; Sunland	46.4	52	60	20	62	44	50	37
5923	Wintok x (Clinton ² -Santa Fe)	45.7	53	60	20	59	41	48	39
6603	Atlantic x (Clinton ² -Santa Fe)	48.6	54	55	20	68	48	56	39
6604	"	49.6	55	60	26	67	47	55	37
6629	"	49.1	55	55	30	64	47	54	39
5492	"	53.4	60	60	33	70	50	58	43
6602	Letoria x (Clinton ² -Santa Fe)	51.1	53	65	32	66	46	54	42
5355	Victorgrain	46.3	51	58	30	60	39	48	38
6744	* (Victa. x Haj-Joan) x (Fulgh.-Victa.); Tex. 4129-3-37	45.1	47	55	27	61	38	48	40
6599	(Sac x Hajira-Joanette) x Fla. 167	44.9	50	56	22	60	40	48	38
6601	Trispermia x (Clinton ² -Santa Fe)	44.3	45	55	24	61	38	49	38
6754	Fla. 167 x (Santa Fe-Clinton; Cl. 4980); Fla. 846-6-8	45.9	47	60	28	56	39	51	40
6755	* Trisp. x (Cl ² -S.F.) x (Atl. x Cl ² -S.F.); Q. 5694	41.4	40	50	24	54	38	47	37
6756	* (Atlantic x Clinton ² -Santa Fe) x Haj-Joan; Q. 11261	46.3	52	50	26	61	44	52	39
6757	(Fla. 167 x Landhafer) x Southland; XM0609-4 Q. 5330	45.3	48	56	26	60	37	50	40
5930	Victorgrain x Landhafer; Miss. 54B	45.7	53	50	26	64	38	53	36

1/ Average of station, 51, substituted for missing data;

* H-J & Haj-Joan = Hajira-Joanette; Victa. = Victoria; Fulgh. = Fulghum; S.F. = Santa Fe; Cl. = Clinton; Trisp. = Trispermia; Atl. = Atlantic; and Land. = Landhafer

Table 71. Percent of lodging on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 5 Stations	Camden, Ala.	Fairhope, Ala.	Headland, Ala.	Tallassee, Ala.	Stoneville, Miss.
5207	Southland	45.2	0	100	10	80	36
6588	Floriland	61.6	50	100	90	7	61
5913	Fla. 167 x Landhafer	58.6	0	100	95	17	81
8666	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	37.4	40	0	30	67	50
1815	Appler (check)	50.2	80	0	35	90	75
5924	Appler x (Clinton ² -Santa Fe): Seminole	42.6	0	0	85	53	1
6726	Carolina Red x Landhafer: Coker's 52-49	31.4	60	0	4	73	20
6600	Fulghum x Landhafer: Sunland	47.4	50	0	90	33	64
5923	Wintok x (Clinton ² -Santa Fe)	58.4	80	0	50	87	75
6603	Atlantic x (Clinton ² -Santa Fe)	28.0	0	0	10	90	40
6604	"	23.8	0	0	20	63	36
6629	"	9.8	0	0	5	33	11
5492	"	9.0	0	5	15	7	18
6602	Letoria x (Clinton ² -Santa Fe)	30.8	0	100	5	33	16
5355	"	44.0	0	100	10	50	60
6744	(Victoria x Hajira-Joanette) x (Fulghum-Victoria): Tex. 4129-3-37	52.2	20	100	10	87	44
6599	(Sac x Hajira-Joanette) x Fla. 167	86.6	80	100	85	83	85
6601	Trispermia x (Clinton ² -Santa Fe)	17.8	15	0	10	50	14
6754	Fla. 167 x (Santa Fe: Clinton: C.I. 4980): Fla. 646-6-8	63.4	20	100	75	60	62
6755	*Trispermia x (Clinton ² -Santa Fe) x (Atl. x Cl ² -S.F.): Q. 5694	43.6	80	0	15	67	56
6756	Atlantic x (Clinton ² -Santa Fe) x Hajira-Joanette: Q. 11261	19.2	0	0	5	60	31
6757	(Fla. 167 x Landhafer) x Southland: XMC 609-4 Q. 533C	28.6	0	0	30	67	46
5930	Victorgrain x Landhafer: Miss. 54B	19.8	0	0	50	13	36

1/ Average for station, 46, was substituted for missing data.

*Atl. = Atlantic; Cl. = Clinton; S.F. = Santa Fe

Table 72. Dates of heading on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average 6 Stations	Fla. Gainesville	Fla. Jay	Fla. Quincy	Fla. Hilton	Miss. Stoneville	Tex. College Station
5207	Southland	4/2	3/14	4/11	4/3	3/23	4/22	3/28
5388	Floriland	3/23	8	3/23	3/26	16	9	20
5913	Fla. 167 x Landhafer	15	2/27	26	17	1	3/31	17
6666	(Hajira-Joanette x Cl. 4383-Cl. 4189) x Landhafer	4/14	4/5	4/21	4/16	4/9	4/30	4/1
1815	Appler (check)	12	5	21	16	7	1	1
5924	Appler x (Clinton ² -Santa Fe) : Seminole	3/20	2/25	1	3/25	3/1	9	3/24
6726	Carolina Red x Landhafer: Coker's 52-49	4/18	4/6	25	4/19	4/17	5/2	4/5
680x	Fulghum x Landhafer: Sunland	3/20	3/3	3/27	3/21	3/6	4/9	3/22
5923	Wintok x (Clinton ² -Santa Fe)	29	6	4/11	4/1	18	17	25
6603	Atlantic x (Clinton ² -Santa Fe)	4/2	8	11	5	25	23	28
6629	"	9	22	19	14	4/3	23	31
5492	"	17	25	27	20	16	5/2	4/9
6802	Letoria x (Clinton ² -Santa Fe)	10	15	24	16	3/30	4/28	4
5355	Victorgrain	11	24	21	14	4/6	29	1
6744	(Victoria x Haj-Joan) x (Fulghum-Victoria): Tex. 4129-3-37	2	15	11	3	3/28	19	3/25
6599	(Sac x Hajira-Joanette) x Fla. 167	1	13	10	3/31	23	19	31
6601	Trispernia x (Clinton ² -Santa Fe)	3/25	9	3/30	25	18	9	27
6754	Fla. 167 x (Santa Fe-Clinton; C.I. 4980): Fla. 846-6-8	4/9	14	4/25	4/14	30	29	4/3
6755	Trispernia x (Clinton ² -Santa Fe) x (Atl. x Cl. 2-S.F.)	3/24	5	3/30	3/24	15	9	3/30
6756	(Atlantic x Clinton ² -Santa Fe) x Hajira-Joanette: Q. 11261	4/1	20	4/8	4/1	25	11	30
6757	(Fla. 167 x Landhafer) x Southland: XM0609-4 Q. 5330	6	23	4/11	6	28	25	4/1
5930	Victorgrain x Landhafer: Miss. 54B	3/29	13	8	3/29	22	12	3/24
		4/1	9	11	4/3	2	19	28

1/ Average of station, 4/19, substituted for missing data.

2/ Average of station, 3/26, substituted for missing data.

Haj-Joan = Hajira-Joanette; Atl. = Atlantic; Cl = Clinton; S.F. = Santa Fe

Table 73. Dates of ripening on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or selection	Average 6 Stations	Camden, Ala.	Fairhope, Ala.	Headland, Ala.	Tallassee, Ala.	Tifton, Ga.	Stoneville, Miss.	College Station, Tex.
5207	Southland	5/14	5/15	5/10	5/10	5/27	4/15	5/22	4/30
6598	Floriland	13	20	8	10	23	15	20	23
5913	Fla. 167 x Landhafer	9	15	10	5	22	10	10	20
6666	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	24	25	30	20	30	--	6/1	5/2
1815	Appler (check)	22	25	30	20	27	--	2/15	4/28
5924	Appler x (Clinton ² -Santa Fe): Seminole	12	20	12	5	22	10	5/15	5/9
6726	Carolina Red x Landhafer; Coker's 52-49	26	30	30	20	28	--	6/3	4/21
6800	Fulghum x Landhafer: Sunland	10	20	10	1	22	10	5/15	4/21
5923	Wintok x (Clinton ² -Santa Fe)	12	15	5	5	28	10	21	29
6603	Atlantic x (Clinton ² -Santa Fe)	23	30	6/1	20	28	--	27	5/1
6604	"	21	20	5/28	20	27	--	22	4/24
6629	"	26	30	6/2	25	6/1	--	6/3	1/2
5492	"	25	30	5/20	25	1	--	5/20	1/2
6602	Letoria x (Clinton ² -Santa Fe)	20	25	10	20	1	--	30	1/2
5355	Victorgrain	14	20	10	10	5/23	18	19	4/29
6744	(Victoria x Hajira-Joanette) x (Fulghum-Victoria); Tr. 4129-3-37	15	15	8	20	24	18	22	5/1
6599	(Sac x Hajira-Joanette) x Fla. 167	11	15	5	5	23	15	15	4/20
6601	Trispermia x (Clinton ² -Santa Fe)	25	25	28	25	6/1	--	30	5/9
6754	Fla. 167 x (Santa Fe-CIanton; C.I. 4980): Fla. 846-6-8	12	20	10	5	5/20	5/10	15	2
6755	*Trispermia x (Clinton ² -Santa Fe) x (Atlantic x CI2-S.F.) Q. 5694	12	15	8	5	22	10	15	4
6756	(Atlantic x Clinton ² -Santa Fe) x Hajira-Joanette: Q. 11261	24	25	30	20	30	--	30	4
6757	(Fla. 167 x Landhafer) x Southland; XM0609-4 Q. 5330	13	15	10	5	25	10	21	4/29
5930	Victorgrain x Landhafer; Miss. 54B	21	20	30	20	28	--	23	5/1

1/ Data too incomplete; not included in average.

2/ Average for station, 5/23, substituted for missing data.

*Cl = Clinton; S.F. = Santa Fe

Table 74. Reactions to diseases on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

CROWN RUST 1/

C.I. No.	Variety or Selection	Camden, Ala.	Fairhope, Ala.	Tallassee, Ala.	Gainesville, Fla.	Quincy, Fla.	Tifton, Ga.	Stoneville, Miss.	College Station, Tex.
		Type	Type	Type	Type	Type	Type	Type	Type
		o/o	o/o	o/o	o/o	o/o	o/o	o/o	o/o
5207	Southland	R	R	MS	I-CS	I-CS	T-10	I-CS	MS
5588	Floriland	R	R	SS	R	R	T	R	R
5913	Fla. 167 x Landhafer	R	R	SS	R-I	R	T	R	R
6666	(Haj-Joan x C.I. 4383-C.I. 4189) x Landhafer	R	R	SS	R-CS	R	T	R-I	R
1815	Appler (check)	R	MS	SS	R-CS	R-CS	T-10	R	R
5924	Appler x (Clinton ² -Santa Fe): Seminole	SS	SS	SS	R-I	R	T	R	R
6726	Carolina Red x Landhafer: Coker's 52-49	R	R	SS	R-I	HR-I	T	R	R
6800	Fulghum x Landhafer: Smland	R	R	SS	R-I	R	T	R	R
5923	Wintok x (Clinton ² -Santa Fe)	R	MS	SS	R-S	R	T	R	R
6603	Atlantic x (Clinton ² -Santa Fe)	R	SS	MS	I-CS	R-S	T	R-S	R
6604	"	R	SS	SS	I-CS	R-S	T-10	R-CS	R
6629	"	R	MS	SS	I-CS	R-S	T	I-CS	R
5492	"	R	S	SS	I-CS	R-S	T-30	I-CS	MS
6602	Letoria x (Clinton ² -Santa Fe)	R	MS	MS	I-CS	I-S	T	R	MR
5355	Victorgrain	R	SS	MS	I-CS	R-S	T-10	I-CS	R
6744	* (Victa. x H-J) x (Fulgh-Victa): Tex. 4129-3-37	R	SS	MS	I-CS	R-S	T-10	R-I	R
5599	(Sac x Hajira-Joanetta) x Fla. 167	R	S	MS	I-S	R-S	T	R	MS
6601	Trispermia x (Clinton ² -Santa Fe)	R	MS	MS	I-CS	R-I	T	R	R
6754	* Fla. 167 x (S.F.-Cl.: C.I. 4980): Fla. 846-6-8	R	SS	SS	R-I	R-S	T	R	R
6755	* Trisp. x (Cl ² -S.F.) x (Atl. x Cl ² -S.F.): Q. 5694	R	SS	MS	R-I	R	T	R	R
6756	(Atlantic x Clinton ² -Santa Fe) x H-J: Q. 11261	R	SS	MS	R-S	R-S	T	I-CS	R
6757	* Fla. 167 x Lend.: x Southland: XMO609-4 Q. 5330	R	MS	SS	R-I	R-S	T	R	R
5930	Victorgrain x Landhafer: Miss. 54B	R	SS	SS	R	R	-	-	R

1/ All entries were reported Resistant to crown rust at Headland, Alabama.

* Haj-Joan & H-J = Hajira-Joanette; Victa. = Victoria; Fulgh. = Fulghum; S.F. = Santa Fe; Cl. = Clinton; Trisp. = Trispermia; Atl. = Atlantic; and Lend. = Landhafer.

Table 75 Reactions to diseases on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	STEM RUST 1/				SMUT 2/				
		Camden, Ala.	Fairhope, Ala.	Gainesville, Fla.	Quincy, Fla.	College Station, Tex.	Fairhope, Ala.	Headland, Ala.	Tallassee, Ala.	Gainesville, Fla.
		Type	Type	Type	Type	o/o	Type	Type	Type	o/o
5207	Southland	R	R	CS	S	65	R	R	R	43
5588	Floriland	R	R	CS	CS	50	R	R	R	0
5913	Fla. 167 x Landhafer	R	R	CS	CS	60	R	R	R	0
6666	*(Haj-Joan x C.I. 4383-C.I. 4189) x Landhafer	R	R	R	R-S	T	R	R	R	0
1815	Appler (check)	R	R	CS	R-S	30	R	R	R	0
5924	Appler x (Clinton ² -Santa Fe) Seminole	MS	R	CS	S	40	R	R	R	0
6726	Carolina Red x Landhafer; Coker's 52-49	R	R	I-S	I-S	35	R	R	R	0
6600	Fulghum x Landhafer; Sunland	R	R	CS	CS	60	R	R	R	0
5923	Wintok x (Clinton ² -Santa Fe)	R	MS	I-S	S	T	R	R	R	58
6603	Atlantic x (Clinton ² -Santa Fe)	R	R	R-I	I-S	5	R	SS	R	38
6604	" "	R	R	R	R-I	T	R	R	R	65
6629	" "	R	R	R	R	T	R	R	R	43
5492	" "	R	S	R	R-I	10	R	R	R	0
6602	Letoria x (Clinton ² -Santa Fe)	R	VS	R-S	I	15	SS	SS	SS	15
5355	Victorgrain	R	SS	CS	S	60	R	R	R	0
6744	*(Victa. x H-J) x (Fulgh-Victa); Tex. 4129-3-37	R	SS	R	R	T	R	R	R	57
6599	(Sac x Hajira-Joanette) x Fla. 167	R	SS	CS	R-I	T	R	R	R	26
6601	Trispermia x (Clinton ² -Santa Fe)	R	SS	CS	CS	30	SS	R	SS	40
6754	Fla. 167 x (S.F.-Cl.; C.I. 4980); Fla. 846-6-8	R	R	CS	CS	85	R	R	R	0
6755	Trisp. x (Cl ² -S.F.) x (Atl. x Cl ² -S.F.); Q. 5694	R	R	CS	S	25	R	R	R	0
6756	(Atlantic x Clinton ² -Santa Fe) x H-J; Q. 11261	R	MS	R-I	I-S	25	SS	SS	R	0
6757	(Fla. 167 x Land.) x Southland; MO609-4 Q. 5330	R	MS	CS	S	70	R	R	R	0
5930	Victorgrain x Landhafer; Miss. 54B	R	MS	CS	S-CS	60	R	R	R	0

1/ All entries were reported Resistant to stem rust at Headland and Tallassee, Ala.

2/ All entries were reported Resistant to smut at Camden, Ala.

Loose smut

Haj-Joan & H-J = Hajira-Joanette; Victa. = Victoria; Fulgh. = Fulghum; S.F. = Santa Fe; Cl. = Clinton; Trisp. = Trispermia; Atl. = Atlantic; and Land. = Landhafer

Table 76. Estimates of forage growth in the Spring and Fall on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Fall				Spring							
		Average 4 Stations	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	College Station, Tex.	Average 6 Stations	Gainesville, Fla.	Jay, Fla.	Quincy, Fla.	Tifton, Ga.	Stoneville, Miss.	College Station, Tex.
5207	Southland	120.8	118	120	130	115	120.2	120	120	125	120	121	115
6588	Floriland	111.8	115	115	112	105	116.7	116	120	128	105	121	110
5913	Fla. 167 x Landhafer	114.0	116	115	115	110	118.7	118	125	122	110	127	110
6668	(Haj-Joan x C.I. 4383-C.I. 4189) x Landhafer	104.8	104	100	110	105	104.5	100	100	105	105	109	108
1815	Appler (check)	100.0	100	100	100	100	100.0	100	100	100	100	-	100
5924	Appler x (Clinton ² -Santa Fe); Seminole	115.5	120	110	127	105	118.2	120	115	125	120	124	105
6726	Carolina Red x Landhafer; Coker's 52-49	106.5	106	110	105	105	105.3	102	115	103	100	107	105
6800	Fulghum x Landhafer; Sunland	117.5	110	120	130	110	122.5	124	125	140	115	121	110
5923	Wintok x (Clinton ² -Santa Fe)	112.3	112	105	122	110	114.7	120	105	123	115	115	110
6603	Atlantic x (Clinton ² -Santa Fe)	114.5	118	115	115	110	114.5	130	110	115	110	107	115
6804	"	110.8	110	110	113	110	113.3	118	110	115	105	117	115
6829	"	109.5	106	110	117	105	109.2	102	110	117	105	111	110
5492	"	107.8	108	110	108	105	111.0	108	115	108	110	115	110
6602	Latoria x (Clinton ² -Santa Fe)	103.0	100	105	107	100	105.5	100	110	103	105	110	105
5355	Victorgrain	103.3	100	105	108	100	107.8	104	110	112	105	111	105
6744	(Victa. x H-J) x (Fulgh-Victa); Tex. 4129-3-37	117.8	108	125	123	115	116.8	108	120	128	115	115	115
6599	(Sac x Hajira-Joanette) x Fla. 167	118.3	116	120	127	110	118.5	110	125	127	115	124	110
6601	Trispermia x (Clinton ² -Santa Fe)	106.0	104	110	105	105	105.8	100	115	98	105	112	105
6754	Fla. 167 x (S.F.-Cl.; C.I. 4980); Fla. 846-6-8	119.5	116	120	137	105	122.0	114	125	143	120	125	105
6755	Trisp. x (Cl ² -S.F.) x (Atl. x Cl ² -S.F.); Q. 5694	109.3	104	110	113	110	109.2	102	115	113	100	115	110
6756	(Atlantic x Clinton ² -Santa Fe) x H-J; Q. 11261	118.3	114	115	132	112	115.5	108	115	123	120	117	110
6757	(Fla. 167 x Land.) x Southland; MC609-4 Q. 533C	111.0	106	110	123	105	109.8	104	115	115	105	115	105
5930	Victorgrain x Landhafer; Miss. 54B	113.3	106	115	122	110	113.3	106	115	122	117	117	110

±/ Average of station, 109, substituted for missing data.

H-J & Haj-Joan = Hajira-Joanette; Victa. = Victoria; Fulgh. = Fulghum; S.F. = Santa Fe; Cl. = Clinton; Trisp. = Trispermia; Atl. = Atlantic; and Land. = Landhafer

Table 77. Type of plant growth on stations reporting of varieties and hybrid selections included in the Uniform Florida-Gulf Coast Experiment grown in 1952-53.

C.I. No.	Variety or Selection	Average of Stations	Gainesville, Fla.	Quincy, Fla.	Stoneville, Miss.	College Station, Tex.	Decumbent	Intermediate	Upright
5207	Southland	U	U	U	U	U	0	0	4
6588	Floriland	I-D	I-U	I	I	I-U	1	3	0
5913	Fla. 167 x Landhafer	I-U	D	U	U	I	0	3	2
6666	(Hajira-Joanette x C.I. 4383-C.I. 4189) x Landhafer	I-D	D	I-D	I	I-D	1	3	0
1815	Appler (check)	U	U	U	U	U	1	3	4
5924	Appler x (Clinton ² -Santa Fe): Seminole	I-D	D	I-D	I	I-D	0	3	0
6726	Carolina Red x Landhafer: Coker's 52-49	U	U	U	U	U	1	3	4
6600	Fulghum x Landhafer: Sunland	U	U	U	U	U	0	3	0
5923	Wintok x (Clinton ² -Santa Fe)	I-U	I-U	U	U	U	0	3	4
6603	Atlantic x (Clinton ² -Santa Fe)	I	I-D	I-U	U	U	0	3	2
6604	"	I	I-D	I-U	U	U	0	3	1
6629	"	I-U	I-D	I-U	U	U	0	3	2
5492	"	I-U	I-D	I-U	U	U	0	3	2
6602	Letoria x (Clinton ² -Santa Fe)	I-D	I	I	U	U	2	3	0
5355	Victorgrain	U	D	I	I	I	1	3	0
6744	(Victoria x Hajira-Joanette) x (Fulghum-Victoria): Tex. 4129-3-37	U	U	I	I	I	0	3	4
6599	(Sac x Hajira-Joanette) x Fla. 167	U	I-U	U	U	U	0	1	3
6601	Trispernia x (Clinton ² -Santa Fe)	I	D	U	U	I	1	3	0
6754	Fla. 167 x (Santa Fe-Clinton; C.I. 4980): Fla. 846-6-3	U	U	U	U	U	0	0	4
6756	*Trispernia x (Clinton ² -Santa Fe) x (Atl. x Clinton ² -S.F.): Q. 5694	I	D	U	U	U	1	0	1
6756	(Atlantic x Clinton ² -Santa Fe) x Hajira-Joanette: Q. 11261	U	U	U	U	U	1	0	4
6757	(Fla. 167 x Landhafer) x Southland: XMC609-4 Q. 5330	I-U	U	U	U	U	1	0	1
5930	Victorgrain x Landhafer: Miss. 54B	I-U	I	U	U	U	1	1	3

1/ Average of station, I-U, substituted.

* Atl. = Atlantic; Cl = Clinton; S.F. = Santa Fe

Table 78.

Summary data obtained on the
Uniform Florida-Gulf Coast Oat Experiment
grown in 1952-53

Rank in Yield	C.I. No.	Variety or Selection	Acre Yield (8 Sta) Bu.	Test Wt. (4 Sta) Lbs.	Plant Ht. (7 Sta) Ins.	Lodg- ing (5 Sta) %	Head- ing (6 Sta) Date	Forage Rating Fall (4 Sta) %	Forage Rating Spring (6 Sta) %
1	6744	Victoria x (Haj-Joan x Fulghum-Victoria)	65.8	31.3	45.1	52.2	4/1	117.8	116.8
2	6757	(Fla. 167 x Landhafer) x Southland	57.6	31.4	45.3	28.6	3/29	111.0	109.8
3	5355	Victorgrain	57.2	30.9	46.3	44.0	4/2	103.3	107.8
4	5930	Victorgrain x Landhafer	54.6	28.6	45.7	19.8	1	113.3	113.2
5	5207	Southland	53.7	30.0	44.6	45.2	2	120.8	120.2
6	5924	Seminole	53.5	29.3	42.6	42.6	3/20	115.5	118.2
7	6666	(Hajira-Joanette x 4383-4189) x Landhafer	51.4	23.3	44.0	37.4	4/14	104.8	104.5
8	6604	Atlantic x (Clinton ² -Santa Fe)	50.6	27.6	49.6	23.8	9	110.8	113.3
9	6588	Floriland	49.0	28.4	46.9	61.6	3/23	111.8	116.7
10	6600	Sunland	48.8	29.8	46.4	47.4	20	117.5	122.5
11	5923	Wintok x (Clinton ² -Santa Fe)	48.3	31.0	45.7	58.4	29	112.3	124.7
12	1815	Appler (check)	48.3	22.4	43.1	50.2	4/12	100.0	100.0
13	6755	(Trisp x Cl ² -S.F.) x (Atlantic x Cl ² -S.F.)	46.7	29.9	41.4	43.6	1	109.3	109.2
14	5492	Atlantic x (Clinton ² -Santa Fe)	46.7	24.3	53.4	9.0	10	107.8	111.0
15	6603	"	46.6	28.1	48.6	28.0	2	114.5	114.5
16	6754	Fla. 167 x (Santa Fe x Clinton: C.I. 4980)	46.5	32.3	45.9	63.4	3/24	119.5	122.0
17	6599	(Sac x Hajira-Joanette) x Fla. 167	46.1	29.8	44.9	86.6	25	118.3	118.5
18	6601	Trispermia x (Clinton ² -Santa Fe)	43.7	28.4	44.3	17.8	4/9	106.0	105.8
19	6726	Carolina Red x Landhafer	43.7	23.1	46.3	31.4	18	106.5	105.3
20	6629	Atlantic x (Clinton ² -Santa Fe)	41.8	24.8	49.1	9.8	17	109.5	109.2
21	6756	(Atlantic x Clinton ² -Santa Fe) x Haj-Joan	41.4	24.6	46.3	19.2	6	118.3	115.5
22	6602	Letoria x (Clinton ² -Santa Fe)	40.4	24.5	51.1	30.8	11	103.0	105.5
23	5913	Fla. 167 x Landhafer	40.2	30.9	45.0	58.6	3/15	114.0	118.7

Haj-Joan - Hajira-Joanette; Trisp - Trispermia; Cl - Clinton; S.F. - Santa Fe

1/ Based on Appler check equalling 100 percent.

Alaska

The entries in the Uniform Northwestern States Oat Experiment were grown at Fairbanks and Palmer, Alaska in 1953. Data were received from both stations and are presented in Table 79.

Yield, Bushels per Acre

Yields were very good in 1953, and most vigorous late-maturing oats produced higher-than-average yields. The earlier-maturing varieties yielded less than in some previous years.

Rodney produced the highest yields at Fairbanks, 125.3; and Roxton at Palmer, produced 81.2 bushels per acre. Ten oats produced yields above 100 bushels per acre at Fairbanks; however, only two of these yielded more than the Golden Rain check. Five oats (Roxton, Shasta, Exeter, Victory, and Bannock) produced yields above the Golden Rain check at Palmer. It is interesting to note that Roxton, Exeter, Victory, and Rodney are the only oats producing more than the Golden Rain check at both stations. The top yields are produced by the taller oats, which does not hold true in the Northwest Region.

Test Weight

Test weights were good in 1953 but slightly below the average of former years. Bannock was the heaviest oat at Fairbanks; and Victory was the heaviest at Palmer. At both stations these oats had only slightly heavier grain than the Golden Rain check. Rodney and Exeter also had very high test weights per bushel. Neither Roxton nor Rodney has quality equal to the check variety. Clintland gave the lowest test weight at Fairbanks; and C.I. 5657 was the lowest at Palmer.

Plant Height

Oats were nearly 10 inches taller on the average at Fairbanks in 1953 than in 1952. At Palmer they were more nearly the same height as in 1952. At Fairbanks the tallest oats grew to only 39 inches in height, while at Palmer the tallest was 43 inches.

Standing Ability

Data on lodging were recorded at both Alaska stations in 1953. Clintland, Clarion, and Overland were the only oats with no lodging. Rodney lodged an average of 7 percent, having much stronger straw than the other top-yielding oats. The selections from the Clinton x Overland² (C.I. 5345 and C.I. 5346) have very strong straw at the Alaska stations, as well as in areas in the Northwest. Exeter had the weakest straw of all entries.

Date Headed

All entries headed during June at Fairbanks, and all headed in July at Palmer. Clarion, Clintland, and C.I. 5657 headed earlier than other oats at Fairbanks; whereas Shasta, Victory, and C. I. No's. 5345 and 5346, were the latest. There were eight days between the earliest and latest entries. Andrew and Park headed earlier than other entries at Palmer, whereas the latest heading oats were Victory, Shasta, Exeter, and C.I. 6613.

Date Ripe

The oats at Palmer headed approximately three weeks later than at Fairbanks, but ripened a week to three weeks or more earlier. The fruiting period at Fairbanks in 1953, as in 1952, was longer than average for the station. The earliest ripening date at Fairbanks was August 15, and at Palmer August 5.

Forage Yield

The oat crop in Alaska is used mostly for livestock feed and because of this, yield of both straw and grain are very important. Forage yields were reported for all entries at both points. Roxton produced lower quality grain than the Golden Rain check and Victory; however, it produced yields of grain near the top at Fairbanks and was highest at Palmer. At both stations, Roxton produced the most forage. The total yields of grain and forage produced by Roxton, Shasta, and Rodney suggest them to be worthy of careful testing in the area.

Table 79. Data on oats in the Uniform Northwestern States Nursery grown on Alaska stations in 1953.

C.I. Variety, hybrid, no. or section	Fairbanks							Forage yield	Yield bu./acre	Palmer				Crage field	
	Ave. yield 2 stations	Yield bu./acre	Test weight pounds	Height inches	Lodging percent	Date head	Date ripe			Yield bu./acre	Test weight pounds	Height inches	Lodging percent		Date head
2053 Markton (check)	68.8	92.6	39.0	33	38	6/24	8/25	3056	45/1	37.2	37	23	7/13	8/14	2349
3916 Cody	75.2	92.1	39.5	28	38	6/26	8/19	3344	58.4	38.2	29	7	7/15	8/15	2157
2592 Bannock	87.2	106.5	42.8	33	23	6/26	8/25	3450	68.0	38.0	38	23	7/15	8/15	2319
1145 Victory (check)	95.6	117.8	42.0	33	38	6/28	8/25	3862	73.4	40.2	38	38	7/16	8/16	2519
2378 Carleton (check)	64.9	77.8	40.0	28	50	6/23	8/16	2781	52.1	31.5	31	23	7/12	8/7	2027
4181 Overland	71.5	95.1	39.7	28	0	6/26	8/22	2777	48.0	38.0	31	0	7/14	8/14	2034
3865 (V-R) x Bannock	75.8	95.3	39.5	28	50	6/26	8/21	2761	56.3	36.8	32	7	7/13	8/15	1681
4372 Shelby (check)	80.0	98.8	40.8	32	23	6/26	8/27	3464	61.3	38.8	36	7	7/13	8/15	2609
4170 Andrew	65.3	80.3	41.8	30	38	6/22	8/18	3148	50.4	33.5	38	77	7/9	8/8	2629
4157 Ajax	73.5	87.2	38.5	32	7	6/25	8/22	3572	59.8	33.8	37	38	7/13	8/7	3040
5226 Fortune	80.9	101.4	42.0	33	38	6/26	8/20	3538	60.5	35.2	39	23	7/13	8/11	2781
5013 Branch	76.1	96.7	42.0	31	38	6/25	8/18	2925	55.5	36.3	34	38	7/14	8/10	2255
5345 Clinton x Overland ²	74.8	97.6	40.0	31	0	6/28	8/25	3440	52.0	38.3	35	7	7/15	8/14	2631
5346 Clinton x Overland ²	75.9	98.0	40.8	31	7	6/28	8/22	3294	53.9	36.7	34	7	7/15	8/14	2559
5347 C.I. 4189 x Overland	71.5	97.4	39.0	29	7	6/26	8/22	2911	45.7	37.7	31	7	7/13	8/14	1855
5657 Andrew x Clinton	62.4	70.0	37.5	28	38	6/21	8/15	3696	54.8	32.5	32	7	7/11	8/5	2915
4988 Mo. O-205	52.6	62.2	40.5	30	38	6/23	8/16	3180	43.0	33.0	32	7	7/12	8/9	1963
5658 Andrew x Clinton	73.6	90.8	38.5	30	23	6/23	8/19	3342	56.5	33.8	38	23	7/11	8/9	3038
6611 Park	59.0	71.3	42.0	32	23	6/22	8/27	3888	46.7	35.2	36	50	7/9	8/9	1274
6612 (B-A)x(Iogold x V-R) L/	67.4	88.0	40.0	29	7	6/26	8/19	2995	46.8	37.8	31	7	7/14	8/14	1765
6613 C.I. 4189 x Overland	83.6	107.0	40.2	32	7	6/27	8/27	3480	60.2	36.7	37	23	7/16	8/15	2461
5441 Clinton x Marion	65.0	73.5	41.0	30	7	6/22	8/27	3480	56.5	35.3	34	7	7/12	8/7	2797
5869 Clintafe	47.1	51.6	38.5	29	0	6/25	8/27	3860	42.7	34.2	32	7	7/13	8/6	2635
3976 Shasta	90.1	103.4	38.7	33	38	6/28	8/27	3928	76.8	36.7	43	38	7/16	8/16	3280
4134 Roxton	102.4	123.6	39.0	39	0	6/26	8/25	4170	81.2	36.2	43	23	7/14	8/16	3504
4158 Exeter	96.9	117.4	41.5	33	38	6/27	8/25	3526	76.4	39.0	38	50	7/16	8/15	2705
5332 Craig	64.9	73.3	41.0	24	23	6/26	8/18	2555	56.5	34.8	30	0	7/15	8/7	2085
5647 Clarion	41.8	42.3	37.7	25	0	6/20	8/27	3768	41.4	34.8	32	0	7/10	8/7	2455
5946 Sauk	85.3	107.9	38.5	32	23	6/26	8/25	3934	62.8	36.5	35	7	7/14	8/13	2527
6661 Rodney	93.9	125.3	42.5	34	7	6/25	8/25	3624	62.6	38.8	36	7	7/13	8/15	2609
6701 Clintland	28.3	25.9	36.3	24	0	6/21	8/27	3674	30.8	33.8	30	0	7/11	8/5	2885
4794 Golden Rain (check)	93.3	120.7	42.7	35	38	6/26	8/17	4158	66.0	39.7	38	7	7/14	8/14	2411

L/ (Bond x Anthony) x (Iogold x Victoria-Richland)

UNIFORM WINTER HARDINESS NURSERY

The winter of 1952-53 was one of the most mild from the standpoint of winter killing in oats of any in the past 25 years. As a result, on no station was killing 100 percent in all entries, and on only 11 stations out of 40 was killing of a differential nature observed. No killing whatever was observed on 29 stations. As a result, the data for the year cannot be considered as very conclusive except they do show that some entries are less hardy than others. New York Selection, C.I. 5364, appeared to be the most hardy in 1952-53; and C.I. No's. 6721 and 6726, the least hardy. The average survival of C.I. 5364 was 90.9; and of the latter two, 49.5 and 49.3 percent, respectively. Summary data obtained in 1952-53 are presented herewith.

Table 80. Summary data on survival of oats in the Uniform Winter Hardiness Nursery grown in 1952-53 ^{1/}

C.I. No.	Variety or Selection	Average 11 Sta.
1815	Appler	58.4
5106	Woodward Composite	85.3
2499	Pentagon: Fulghum Winter Type	82.5
3168	Fulwin	86.9
5850	Arkwin: Ark. Sel. Tenn. 1922 x (Bond-Logold)	82.1
6573	(Fulwin x Lee-Victoria) x Tennex	84.0
6719	(Victoria x Hajira-Banner) x (Fulghum-Victoria)	54.8
6571	Fulwin x (Lee-Victoria): Tex. Sel. 3770-7	82.7
6717	" " : Tex. Sel. 3770-1	85.4
947	Tech	85.8
2505	Hairy Culberson	86.2
5368	Clinton x Hairy Culberson: Ind. Sel. 407-25-6	89.2
3424	Wintok	85.3
6720	Wintok x (Clinton ² -Santa Fe): Sel. 1094	70.8
5118	Colo x Wintok	86.4
3296	Winter Turf (check)	77.0
6721	Winter Turf x (Clinton ² -Santa Fe): Sel. 1002	49.5
5364	New York Selection	90.9
2042	Lee	69.2
6604	Atlantic x (Clinton ² -Santa Fe): Sel. Row 216	61.9
6583	C.I. 4658 x (Clinton ² -Santa Fe): Sel. 506-1	72.9
6722	" " : Sel. 506-8	76.9
708	Fulghum	60.7
6723	Victorgrain 48-93: Coker's '53 B.R.S.	67.6
6724	Fultex x Santa Fe: Coker's 52-15	72.9
6725	Santa Fe x (Stanton-Fulgrain): Coker's 52-22	62.0
6726	Carolina Red x Landhafer: Coker's 52-49	49.3
6572	Clinton x Forkedeer: Ind. 4011-4-92	84.6
6727	" " : Ind. 4011-14-4-3	86.3
6728	" " : Ind. 4011-5-3-1-3	86.3

^{1/} No killing was reported in nurseries grown on the following stations: Fayetteville and Stuttgart, Arkansas; Athens and Experiment, Georgia; Carbondale, Illinois; Princeton, Indiana; Hopkinsville and Lexington, Kentucky; College Park, Maryland; Holly Springs, State College, and Stoneville, Mississippi; Statesville and Waynesville, North Carolina; Stillwater, Oklahoma; Moro, Oregon; Blackville, Clemson, Hartsville, and York, South Carolina; Columbia, Crossville, Jackson, and Knoxville, Tennessee; Greenville, Texas; Blacksburg and Staunton, Virginia; and Morgantown and Wardensville, West Virginia.

DISEASE RESISTANCE OF OAT VARIETIES AND SELECTIONS
INCLUDED IN THE UNIFORM NURSERIES GROWN IN THE
COOPERATIVE COORDINATED OAT BREEDING PROGRAM IN 1952-53

As in previous years, a number of reports were received from co-operators who grew one or more of the nurseries included in the coordinated program in "disease nurseries," where artificial epidemics of one or more diseases had been produced. As these reports add much to the over-all picture of these entries, such data are included in a supplemental section of the report just as received from the co-operators. The supplemental reports and those supplying data in 1953 are as follows:

Northeastern States Oat Experiment

Rowland Geis

Beltsville, Md.

North Central States Oat Experiment

Rowland Geis

Beltsville, Md.

Spring Sown Red Oat Experiment

Rowland Geis

Beltsville, Md.

J. M. Poehlman

Columbia, Mo.

E. D. Hansing and W. L. Fowler

Manhattan, Kans.

Special Winter Oat Experiment

R. W. Earhart

Gainesville, Fla.

Fall Sown Oat Experiment

R. W. Earhart

Gainesville, Fla.

Florida-Gulf Coast Oat Experiment

Rowland Geis

Beltsville, Md.

R. W. Earhart

Gainesville, Fla.

Table 81.

Reactions to rust infection of entries included in the uniform nurseries grown in the summer disease garden at Beltsville, Maryland, in 1953

(Data supplied by Rowland Geis and P. Seppi)

Entry No.	Northeastern States Oat Experiment		North Central States Oat Experiment		Spring Sown Red Oat Experiment		Florida-Gulf Coast Oat Experiment	
	C.I. No.	Crown Rust ^{1/} Sept. 8 Sept. 22	C.I. No.	Crown Rust Sept. 8 Sept. 22	C.I. No.	Crown Rust Sept. 8 Sept. 22	C.I. No.	Crown Rust Sept. 8 Sept. 22
1	4134	R MS	6764	R R	6619	R R	5207	S S
2	4521	MR MS	6765	R R	6620	R R	6588	R R
3	4158	S S	6700	R R	6621	R R	5913	MR MR
4	5226	S MS	6701	MS MS	6622	R R	6666	R R
5	4157	MR MR	6748	R S	4170	MR MR	1815	R S
6	6661	R MR	6539	S MS	6623	MR MR	5924	MS MS
7	6767	S MR	6749	R MS	6630	R R	6726	R R
8	6648	MR MS	6766	S MS	6632	R R	6600	R R
9	6662	MS MS	6643	R S	6633	R R	5923	MR MS
10	6541	S S	4259	S R	6634	R R	6603	MS MS
11	5946	S S	6644	R S	6636	R R	6604	MR MR
12	5332	MR MS	5940	S S	6638	R R	6629	MR MR
13	4988	S S	6641	S MS	6639	R R	5492	R R
14	5647	S S	6642	MS S	3971	S S	6602	R R
15	5441	S S	6537	R MR	839	S S	5355	MR MR
16	5440	S S	6752	R MR	3991	R R	6744	R R
17	4259	S S	5946	R R	4301	MS S	6599	R R
18	560	S S	6767	R R	5444	R R	6601	MS MS
19	4372	S S	6661	MR MS	4988	R R	6754 ^{2/}	- R
20	3502	S MR	4372	MR MS	5323	S S	6755	- R
21	5347	S S	5440	MR MS	4626	S S	6756 ^{2/}	P -
22	6613	MS S	5441	MS S	4986	R MS	6757 ^{2/}	- R
23	5346	S S	5647	S S	6625	MS MS	5930	R R
24	6611	R R	5628	S S	6624	S S		
25	6644	MS S	4170	S S	6761	S S		
26	6641	S S	5636	S S	2820	S S		
27	6649	S R	5966	S S	6762	S S		
28	6771	R R	5967	S S	6763	S S		
29	6768	R R	4988	R MR	4672	S S		
30	6776	R R	2027	S S	6629	MR R		
31	6777	R R	3502	R MR	6631	R R		
32	5869	R R	6611	MR S				
33	4327	R R	6769	S S				
34	6779	R R	6770	S S				
35	6780	R R	6662	MR MR				
36	6700	R R	6649	R MR				
37	6701	R R	6772	MR S				
38			6773	S MS				
39			6774	S MS				
40			4157	MS				

1/ Crown rust races 45, 57, and 101 were used as inoculum.

2/ Not grown

R = Resistant; MR = Moderately resistant; S = Susceptible;
MS = Moderately susceptible.

Table 82. Reactions to diseases of oat varieties included in the Uniform Spring Sown Red Oat Experiment grown in 1953 at Columbia, Missouri, and Manhattan, Kansas

Data supplied by J. M. Poehlman, Columbia, Missouri
Data supplied by E. D. Hansing, Manhattan, Kansas

	Stem Rust ^{1/}		Race 7		Race 8		Com- posite 4/		Smut ^{2/}		Vic- toria Race	
	%	type ^{3/}	%	type ^{3/}	%	type ^{3/}						
6619 Andrew x Landhafer	5	3	70	4	70	4	1	0	0	0	0	0
6620 " "	25	4	70	4	70	4	0	-	-	0	0	0
6621 " "	25	4	70	4	70	4	0	-	-	0	0	0
6622 " "	25	4	70	4	70	4	0	0	0	0	0	0
4170 Andrew	5	2	70	4	70	4	0	0	0	0	0	0
6623 Andrew x Landhafer	25	4	70	4	70	4	0	0	0	0	0	0
6630 " "	2(40)	2(4)	70	4	70	4	1	0	0	0	0	0
6632 " "	2	2	70	4	70	4	0	0	0	0	0	0
6633 " "	2	2	70	4	70	4	0	0	0	0	0	0
6634 " "	2	2	70	4	70	4	0	0	0	0	0	0
6636 " "	2	2	70	4	70	4	0	0	0	0	0	0
6638 " "	2	2	70	4	70	4	2	0	0	0	0	0
6639 " "	25	4	70	4	70	4	0	0	0	0	0	0
3971 Clinton (check)	2(40)	2(4)	70	4	70	4	0	0	0	0	0	0
839 Kanota (check)	10	4	10(70)	2(4)	70	2(4)	1	0	0	0	0	0
3991 Osage (check)	10	4	70	4	70	4	70	0	75	0	0	8
4301 Nemaha	2	2	70	4	70	4	0	9	0	0	0	2
5444 Cherokee Reselection	20	4	10(70)	2(4)	70	2(4)	0	0	0	0	0	0
4988 Mo. O-205: Columbia x (Victoria-Richland)	2	2	70	4	70	4	0	0	1	0	0	12
5323 " "	2	2	70	4	70	4	0	0	0	0	0	3
4626 Mo. O-200	2(40)	2(4)	70	4	70	4	0	0	0	0	0	3
4986 Columbia x Marion	2	2	70	4	70	4	0	0	0	0	0	0
6625 " "	2(40)	2(4)	70	4	70	4	0	0	0	0	0	0
6624 (Columbia x Victoria-Richland) x Clinton	20	4	70	4	70	4	0	0	0	0	0	20
6761 " "	30	4	10(70)	2(4)	70	2(4)	0	0	0	0	0	6
2820 Columbia (check)	30	4	70	4	70	4	20	0	0	0	0	18
6762 (Columbia x Victoria-Richland) x Clinton: Mo. O-4275	40	4	10(70)	2(4)	70	2(4)	0	0	0	0	0	1
6763 " "	40	4	10(70)	2(4)	70	2(4)	2	0	0	0	0	10
4672 (Bond-Anthony) x (Richland-Fulghum)	30	4	10	2	10	2	0	0	0	0	0	0
6629 Atlantic x (Clinton ² -Santa Fe)	30	4	10(70)	2(4)	70	2(4)	4	30	0	0	0	35
6631 Andrew x Landhafer	2	2	70	4	70	4	0	0	0	0	0	0

1/ Stem rust epidemics established in separate nurseries by artificial inoculation. Crown rust inoculations were also made, but infections were not adequate to take notes. 2/ Vacuum inoculation. 3/ Type expressed on scale of 1=Resistant to 4=Completely susceptible. 4/ Composite of 8 races of loose and covered smut other than the Fulton and Victoria races of loose smut.

Table 83.

Reactions to diseases of entries included in uniform nurseries grown at Gainesville, Florida, in 1953

(Data supplied by R. W. Earhart)

Special Winter
Oat Experiment

Fall Sown Oat Experiment*

Florida-Gulf Coast Oat Experiment

Entry No.	C.I. No.	Laboratory		Field			Laboratory		Field		
		Stem Rust Reac.	Culm Rot	C.I. No.	Stem Rust Reac.	Culm Rot	C.I. No.	Stem Rust Reac.	Culm Rot	C.I. No.	Stem Rust Reac.
1	5107	S	2.5	3531	S	3.0	5207	S	3.0	5207	S
2	5118	S	2.5	6724	S	2.5	6588	S	1.0	6588	S
3	5850	S	2.5	6723	S	1.5	5913	S	1.5	5913	S
4	3424	S	1.5	6725	S	2.0	6666	R	2.0	6666	R
5	5106	S	2.0	1815	S	2.5	1815	S	1.0	1815	S
6	3168	S	2.5	6588	S	2.0	5924	S	2.0	5924	S
7	4660	S	2.0	5207	S	3.0	6726	S	2.5	6726	S
8	6571	S	1.5	4653	S	1.5	6600	S	1.5	6600	S
9	6717	S	2.0	6730	S	3.0	5923	I-S	1.5	5923	I-S
10	2042	S	1.5	6574	R	2.5	6603	R-S	1.5	6603	R-S
11	4600	S	2.0	5873	R	1.5	6604	S	1.0	6604	S
12	3170	S	1.5	5371	HR-R	2.0	6629	I-S	1.5	6629	I-S
13	6727	I	1.5	6719	R	2.5	5492	I-S	1.5	5492	I-S
14	6728	I-S	3.5	5372	S	1.0	6602	I-S	2.0	6602	I-S
15	5368	S	1.5	6729	S	1.5	5355	S	1.0	5355	S
16	3296	S	1.7	5872	S	3.0	6744	R	1.5	6744	R
17	6718	S	1.5	2/	S	2.5	6599	S	1.0	6599	S
18	5364	S	1.7	6582	S	2.0	6601	S	2.0	6601	S
19	6572	R-S	1.7	6603	R-S	2.5	6754	S	1.0	6754	S
20				6605	I-S	2.5	6755	S	2.0	6755	S
21				6602	I-S	3.0	6756	R-I	1.5	6756	R-I
22				6583	I-S	2.5	6757	S	1.5	6757	S
23				4657	S	2.0	5930	S	1.0	5930	S
24				4599	S	3.0					
25				4660	S	2.0					
26				6571	S	2.5					
27				6717	I-S	3.0					
28				3392	S	3.0					
29				1815	S	3.0					
30				3855	S	2.0					
31				3923	S	1.0					

1/ Culm Rot = *Helminthosporium sativum*;

0 = no infection, 4 = dead

2/ See was check in laboratory; Camellia, in the field.

R = Resistant; HR = Highly resistant;

I = Intermediate; S = Susceptible

* C.I. No's. 6731 & 6732 not reported on.

